AMERICAN GAS ASSOCIATION MONTHLY

Vol. VII No. 8

AUGUST, 1925

AFTER twelve years' specialized effort we are proud of the fact that over 90 per cent of the industry collectively contributes to the B. C. G. A. something like £40,000 annually to be spent on advertising the service which gas can render the community and the nation.

—W. M. MASON,
Manager, British Commercial Gas Association

Make Your Plans Now to Attend the
Seventh Annual Convention, American Gas Association
ATLANTIC CITY, OCTOBER 12-16, 1925

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Study Your Business at Home!

HOW often have you wished you could knock off work for a year and study or brush up on the fundamentals, not only of your own job, but also the job of the man just ahead of you!

Uncle Sam, Columbia University and the American Gas Association have gotten together to bring their services to your door in a comprehensive, 24-lesson correspondence course, covering all the technical phases of gas company operations, including manufacture, distribution and utilization, also treating such general subjects as rate making, public relations, etc.

This is the opportunity that hundreds of gas men have been waiting for—practical men without the benefits of a technical education, who rightly feel that a wider grasp and a clearer comprehension of both technical and administrative problems will give them just that needed impetus to tackle bigger things.

Now is the time to plan your winter. Send in your application before your resolution has a chance to cool. The course begins October 1 under the personal supervision of Professor Jerome J. Morgan of the Chemistry Department, Columbia University, New York, N. Y. Inquiries and requests for application blanks may be addressed either to Professor Morgan or to Kurwin R. Boyes, secretary, Committee on Education of Gas Company Employes, American Gas Association, 342 Madison Avenue, New York, N. Y. Price of the complete course, including text material, is sixty dollars ($60), payable to Columbia University upon enrollment.

AMERICAN GAS ASSOCIATION MONTHLY

342 MADISON AVENUE, NEW YORK, N. Y.

HENRY OBERMEYER
Editor

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For statements and opinions contained in papers and discussions appearing herein, the Association does not hold itself responsible.

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Our Own Who's Who

III.

DANA D. BARNUM

BORN in Bethel, Connecticut, August 15, 1872; Graduated from Stevens Institute in 1895; Employed by Worcester Gas Light Company, November, 1895; President of New England Association of Gas Engineers, 1912-13; President Worcester Gas Light Company, April, 1915; President of the Guild of Gas Managers, 1917-18; Vice-President Boston Consolidated Gas Company, November, 1917; Third President of the American Gas Association, 1921-22; President of the Boston Consolidated Gas Company since 1922.

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Vol. VII AUGUST, 1925 No. 8

Lignite As a Practical Gas-Making Coal

By H. J. FORWARD, Manager, Sheridan Gas & Fuel Co., Wyoming

THE general impression among gas men who have made a study of production is that lignite coal has no value as a gas coal and that the by-products obtained have no commercial value. About nine years ago a coal gas plant was built in Sheridan, Wyoming, by a civil engineer who had an idea that the lignite coal mined adjacent to the city would make a marketable city gas. Repeated efforts were made to manufacture gas from the Sheridan coal, and finally after successive failures it was abandoned and the company resorted to the use of gas coal shipped from Southern Colorado, a distance of about nine hundred miles.

Several times during the next few years, when coal shipments were delayed, Sheridan coal was tried, each trial resulting in the city being without gas. Naturally, the people of Sheridan were thoroughly convinced that their coal was unfit for gas making purposes.

When I came to Sheridan in April, 1921, to take over the management of the company, I found that gas coal was costing $1.84 per thousand cubic feet of gas sold. Many changes were made in retort house practice until this cost was reduced to $1.25 per thousand cubic feet of gas sold. We began our experiments with Sheridan coal in February, 1922, the result being that for the year 1922 coal carbonized was reduced to 86 cents per thousand feet of gas sold. The experimental work continued throughout the next two years, and in August, 1924, we found a way to use lignite coal exclusively, not only for gas coal, but for bench fuel as well. This resulted in reducing our coal cost until the item coal carbonized for the first four months of this current year was 35 cents per thousand cubic feet of gas sold, and for April and May was only 30 cents.

It occurs to me that many readers will ask the question, "How about the revenues from coke?" Gas coking coal will yield 1360 pounds of coke per ton of coal carbonized. This coke was worth only $4.50 per ton net to us after delivery—delivery costing $1.25 per ton. Domestic coal sells at from $3.75 to $4.50 per ton delivered in the bin, and we would have great difficulty in selling our output of

While it is true that before now lignite has been mixed with coke for making water gas in other localities, I believe that we are the first and only gas plant to make straight coal gas in standard ½ depth benches, using lignite, a non-coking coal, for retort coal and bench fuel. We use no so-called gas or coking coal or coke in our plant whatsoever.—Author's Note.

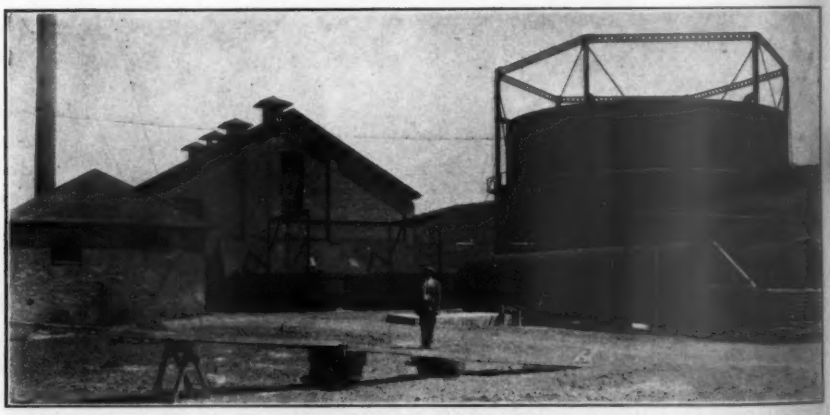
coke at $5.75 per ton delivered. Our lignite gives us a residual resembling inch and a half screenings except for its weight and lustre, the yield being 800 pounds per ton of coal carbonized. This residual, which we call "breeze" for lack of a better term, is an excellent boiler fuel and sells readily in competition with lignite screenings, netting us about $1.25 per ton.

On account of the distance to market, coal tar is of very little value. We have shipped several carloads of tar and find the net to us very little more than the cost of freight and pumping. For this reason we have endeavored to develop a local market for coal tar, and find that it is very much more satisfactory from a sales standpoint. Our yield is five gallons per ton of coal carbonized, which is five gallons less than the yield from our old gas coal.

Another question that will be asked is, "How can you maintain good heats in the benches with lignite coal?" I must answer this by saying that our heats range from 2,400 to 2,700 degrees Fahrenheit constantly, with no difficulty whatever and at a very reasonable cost. For the first four months of this year our bench fuel cost was 74.7 cents per ton of coal carbonized.

THE gas company is not the only party to benefit from the use of cheaper fuel. The use of lignite coal has made a material difference in coal cost, and the city is benefited by the $2100 per month now being spent there, in addition to the reduced rate in gas which this has helped to bring about, not only owing to the lower price and greater efficiency of the coal, but the great saving on freight. Southern Colorado coal used to cost the Company $376.00 per carload for shipment in comparison to the $15.00 to $18.00 which it now pays.—Ed.

During the early part of our experimental work we tried mixing 5 per cent lignite with coking coal and found that the mixture did not affect the gas nor hurt the quality of the coke materially. We then tried a 20 per cent and a 25 per cent mixture without causing any trouble as far as the gas was concerned, but the merchandising value of the coke was ruined. The mixture was then increased to 50 per cent, which still made good gas. There was a noticeable difference, but not enough to cause any trouble. The coke that resulted from this mixture did not form in solid lumps, but crumbled into breeze when drawn from the retorts.



Plant of the Sheridan Gas & Fuel Company

"Our Heats Range from 2,400 to 2,700 Degrees Fahrenheit Constantly."

The next step was trying small charges of lignite in the bottom retorts and using coking coal in tops and middles. Following this we tried lignite in both bottoms and one middle retort. The quality of the gas was lowered by this increase, and for some time we varied back and forth until the difficulty was overcome. Later both middles and bottoms were carbonizing lignite, and our top retorts furnished the coke for bench fuel. For over a year we made gas in this manner, averaging about 65 per cent lignite coal.

From time to time during this period we would fire a furnace with cold coke and try single shifts with lignite in all retorts. On several occasions we were successful for a few days at a time, but only after a great number of trials did we find a method of doing it constantly day after day without having to fall back on the old system of charging top retorts with regular gas coal.

At this point in our series of experiments, we tried coals from several of the different mines in the Sheridan coal field, finding only two that gave approximately the same results. Continuing this, we compared results obtained from screenings with results from nut, pea, egg and lump coal. The conclusion was that clean nut or pea grades were best when the demand necessitated charges running from 450 to 650 pounds per retort per eight hours. Screenings gave best results when used in charges of less than 450 pounds each. Several times we have carbonized as high as 11,100 pounds of lignite coal in one bench in 24 hours, the carbonization period being eight hours.

Now we had arrived at the real problem, that of converting our furnace to the use of lignite for bench fuel. We concentrated on this problem during the months of June and July, 1924, and mastered the difficulty on one of our old benches. Before warming up a new bench, we made the necessary changes in furnace construction which we thought would bring the desired results. One thing to be overcome was that of preventing the draft from by-passing the fire. Naturally a coal fire in our furnace could not be fired as heavily as a coke fire. When we started a slow fire in our new bench and began to bring up the heat with

Lignite Gives a Residual Resembling Inch and a Half Screenings, the Yield Being 800 Pounds Per Ton of Coal Carbonized.

lignite coal, you can well imagine our anxiety. If our theories did not work out as we had planned, the result would be that we would have to go back to our old system and continue to use 35 per cent of our retort coal at a price of $6.15 per ton more than our own Sheridan coal. At the end of the twelfth day I was convinced that we would be successful. Later on, when the bench finally came to the proper heat, it was put into service and has never had even a forkful of coke to help the heats.

Since September 1, 1924, we have made coal gas in our plant from lignite coal exclusively. The analysis of this coal is as follows:

Moisture	22.25
Volatile matter	35.01
Fixed Carbon	39.01
Ash	3.73
Sulphur	.37
Determined B.t.u.	9617

The gas supplied to the City of Sheridan from this coal will average 535 B.t.u. per cubic foot. Our equipment consists of four standard one-half depth benches of sixes, and the changes which we have made in order to utilize our local coal have cost only a moderate sum of money.

Both the Sheridan-Wyoming Coal Company, and the Hotchkiss Coal Company, who own and operate a number of mines in this vicinity, have shown a fine spirit of co-operation. We have found that coal from the Monarch mine owned by the former, and the Hotchkiss mine owned by the latter are equally satisfactory when used for retort coal.

In conclusion, let me state that, after conducting experiments with lignite coal for three years, I am thoroughly convinced that in the future large quantities of this so-called low grade fuel will be used for gas making purposes. I believe that gas plant operators, particularly those within a reasonable distance from lignite coal fields, will find it well worth their while to investigate its possibilities.

Offers Scholarships to Four Employes' Sons

THE story of an extremely interesting and unusual scholarship endowment forms the leading feature of the July issue of *Hail Columbia*, the monthly magazine published by the Columbia Gas & Electric Company. The donor is Philip G. Gossler, president of that company, and the endowment provides for four scholarships of the value of $500 a year each, to be known as the Columbia system scholarships.

The interesting feature of the gift is that these scholarships are to be awarded exclusively to sons and daughters of employes of one or another of the various companies of the Columbia system. Included in this category are deceased employes or those retired after long service.

A committee has been chosen by Mr. Gossler to administer the scholarship fund and make the awards in accordance with whatever procedure seems best. This consists of Edward Reynolds, Jr., vice-president and treasurer of the Columbia Gas & Electric Company; H. A. Wallace, vice-president of the Columbia and also of the United Fuel Gas Company; Frank M. Tait, president of the Dayton Power & Light Company; and C. W. DeForest, vice-president of the Columbia Power Company.

Practically no restrictions are to be placed upon the choice of scholarship students as to the college or university to be attended or the course of study to be pursued, and it is expected that in normal cases positions will be open in the Columbia system for them, if they desire to join the organization after graduation.

New England Association of Gas Engineers

The Secretary of this association, J. L. Tuthbury, has announced that the 1926 Convention will be held in the Hotel Somerset, Boston, Mass., February 24 and 25.

A Gas Man's Story of the Great Tornado

When Public Service Meant the Saving of Human Lives

By H. L. FARRAR, District Manager, Southern Illinois Gas Company

THE tornado which swept through Missouri, Southern Illinois and Indiana, a distance of 550 miles, on the afternoon of March 18, caused great loss of life and severe property damage in Murphysboro. Two hundred and twenty-five inhabitants of this city lost their lives and over nine hundred were injured. Over eight hundred were killed in the entire tornado district. The property damage is estimated at not less than $6,000,000 in Murphysboro alone, a city of less than 12,000 people. Over eight hundred homes were totally destroyed, and at least six hundred were partially damaged. The Mobile & Ohio Railroad lost over $1,000,000 by the loss of their shops.

The path of the storm was at least three quarters of a mile in width, but caused considerable damage outside its direct path. The average cyclone takes a path of less than one quarter mile. The probable cause of the great width of the path of this storm at Murphysboro was that there were two separate and distinct storms which met here, one, the main tornado, coming from the southwest, and the other, a heavy wind storm, coming from the northwest. The weather was not warm enough prior to the storm to permit heating plants to be down, so many fires occurred immediately after the tornado. Many people were burned who were pinned down beneath the wreckage. Streets were blocked by fallen poles, lines, trees and houses, so that ambulances or other conveyances could not reach the injured promptly. Many of the local doctors worked through the devastated territory all through the night on foot administering first aid to the injured, who were lying in the open in many cases. However, the local forces, together with outside aid and the assistance of the Red Cross, were fairly well organized by morning.

The Gas Plant Escaped with Minor Injuries

But probably the readers of the MONTHLY are more interested at this time in how the tornado affected the local utilities, having read most of the other details in the newspapers.

This company furnishes gas, water and electricity to the city of Murphysboro, and supplies gas to Marion, Herrin, West Frankfort and ten other surrounding municipalities through a high pressure transmission pipe line from two plants, one at Murphysboro, and one at Du Quoin.

The electric station, water works and

What the Big Wind Did to the Electric Plant

All These Were Gas Consumers Once. Forty-six Per Cent of Gas Meters Were Lost by the Storm

gas plant in Murphysboro are located in the extreme east part of the city, on the banks of the Big Muddy River. No particular damage was done to the manufacturing plant of the gas department, or the filter plant of the water department. This property was not in the direct path of the tornado, but over fifty per cent of the brick walls of the electric station building were blown in, injuring three of the employes, and putting considerable equipment completely out of commission. Some of this equipment was very essential to service. Two large boilers, one turbine electric generator, the largest unit at the station, two motor generators for transferring from alternating to direct current, two city street light transformers, two gas compressors and the electric-driven high-pressure water pump, used for pumping water to the city water distribution system, together with steam mains, water lines and other pipes leading to other important units located in other parts of the plants were either totally lost or rendered temporarily useless.

The three injured employes were one engineer, and two firemen, who had just completed their duties and were in the wash room bathing and preparing to leave the plant. None of these men realized the severity of the storm and with scarcely any warning whatever the brick walls were blown in on them burying one of them with from three to four feet of brick. The other two men were more fortunate, securing some protection from two steel clothes lockers which fell on top of them.

The superintendent was in a separate building at the time the storm struck. This building received very little damage, although it is of frame construction and within fifty feet of the main electric station building. It took considerable time to locate and uncover the three injured employes and rush them to the hospital, but after this was done and the men had seen to the safety of their families, the superintendent and other employes set about their duty of establishing utility service required.

Water was the most essential commodity required immediately following the storm, but with the electric-driven water pump demolished, the largest boilers out of commission and steam piping broken, it appeared to be a serious matter. However, the company maintained the old boiler house and three large old steam water pumps for such emergencies, and it was this equipment that had to be put into operation.

In the meantime fires were breaking out in all parts of the city, and with darkness at hand it looked like a night of horrors. Two of these steam pumps were started, but, with a limited boiler supply, practically no pressure could be

Strong Buildings Like This School House Collapsed Like Paper

maintained. Additional old boilers were fired and water filters by-passed to increase capacity. The water sendout by 8 p.m. had increased from 700 gallons per minute (before the storm) to 3,000 gallons per minute. But this can be understood when one realizes that nearly a thousand service pipes to residences and other buildings had been broken off and were now running full stream, together with six fire hydrants broken off and permitting full streams of water to pass. Men were sent out to plug off broken pipes, but their efforts availed little. In the meanwhile rescue parties and fire departments from surrounding cities were arriving. The fires were spreading and it appeared for some time that all of Murphysboro would burn. Relief trains were running constantly, bringing relief to the city, and taking women and children rendered homeless, together with injured from the city. Finally, however, heroic efforts on the part of those fighting fires won, and the spread of fire stopped. There is no question but what the loyal efforts on the part of the utility employes played a great part in these hours of need.

The following day other forms of utility service were in demand. During the night the Masonic Home, the Elks' Home, Eagles' Lodge and other places were turned into hospitals, doctors were operating and required light to see and gas for heating water and sterilizing instruments. Over seventy per cent of the poles and lines were blown down, and while it appeared a hopeless task to the management to re-establish electric service, they set about rebuilding lines in less than twenty hours after the storm.

I neglected to state in the beginning that the old frame building near the electric station, which was not damaged, is in reality the original electric station, locally known as the old light plant. This plant contains an old Allis-Chalmers engine and generator, too small and inefficient for ordinary use, but maintained in operating condition for emergency use.

To be brief, electric service was restored to the main hospital before night of the day following the storm, and by the next night all emergency stations, such as drug stores, restaurants, laundries and even a few retail stores were using lights.

GAS SERVICE IN DANGER

The gas department was less seriously affected, but with nearly a thousand service pipes broken off, and with the water department demanding all available steam, no attempt was made to furnish gas the night of the storm. Communication with the company's offices from the Murphysboro headquarters was impossible the next day, so it was necessary to dispatch messengers to the other cities to ascertain if it were safe to start pumping gas into the transmission system. This took considerable time, but before 2 p.m. the compressors were in operation and all communities except Murphysboro had gas twenty-four hours after the storm.

On account of the damage and great loss of gas, it was necessary to eliminate a number of sections of the city from the distribution system by cutting off mains in the street. The huge piles of debris made it impossible to locate the broken service pipes promptly enough. A great many residences, however, in the direct path of the storm were damaged, and it was necessary to do considerable house-to-house inspecting before gas could be turned on. At 2:30 Friday, or 48 hours after the storm, nearly all in Murphysboro who desired had gas service. In less than a week all sections were inspected and the mains were again cut in.

The gas supplied is a mixed natural and manufactured gas, having practically no odor. It is quite difficult to locate leakage. With much effort put forth in searching for leaks, the unaccounted-for gas was about three times normal a month after the tornado. Aside from the work involved in reconstructing damaged property, the work of accounting for lost property has been difficult. All records had to be checked several times to determine the loss in customers and property. Immediately after the tornado this company found it had a loss of 48 per cent in electric meters, 38 per cent in water meters and 46 per cent in gas meters, or an average loss of 42 per cent of its customers. Within two and a half months almost half those lost had been reconnected leaving a net loss of 27 per cent.

It may take two years to regain all of this lost business. However, the power load has increased tremendously, due to the vast amount of rebuilding, and the daily output of electric current in May exceeded that of a year ago. The gas output has decreased to some extent, but not as much as one would expect, for so many families have doubled up, two and three families living in one residence.

Murphysboro is rebuilding very rapidly. To see the large number of buildings being erected and the huge force of carpenters, bricklayers and other construction men at work reminds one of those western cities which suddenly boomed. The American Red Cross is doing a wonderful work in assisting the people to rebuild. Two and a half million dollars have been donated from all parts of the country for relief work in the tornado district and practically all of this has been turned over to the Red Cross for distribution. They have headquarters in Murphysboro with branch offices in the various other communities affected.

Paul Bucher

Paul Bucher

PAUL BUCHER, vice-president of the Kings County Lighting Company, Brooklyn, N. Y., was killed instantly on Tuesday morning, July 14, when he was seized with a heart attack and fell from a horse. His neck was broken. Mr. Bucher was spending a vacation with Mrs. Bucher at the Tavern on the Moors, Siasconset, Nantucket Island, Mass.

Mr. Bucher was 48 years old. He was born in Lebanon, Pa., and was graduated from Lehigh University. Since 1916, he had been an official of the Kings County Lighting Company. Prior to that he was with the Pacific Gas and Electric Company of San Francisco, Cal. His entire life has been devoted to public utility service.

He was president of the New York Lehigh Club, a director of the Brooklyn Club, a member of the American Gas Association and various other organizations. His home was at 540 Senator Street, Brooklyn. He is survived by his wife, a sister and two brothers.

QUAKE INSURANCE HIGHER

ON THE GROUND that the rates made effective on April 1 for earthquake insurance were entirely too low, the executive and rate committees of the explosion conference, representing a section of the New York Board of Fire Insurance Underwriters, have advanced the rates to correspond better with rates under the jurisdiction of the Pacific Board of Underwriters. The old rates with 50 per cent coinsurance were multiplied by 2½ and became the new rates with 80 per cent coinsurance.

The recent disasters at Santa Barbara and other sections are believed to have immediately prompted the step as well as a greater interest by owners in earthquake protection.

The explosion conference proposes to make some refinements in the new schedule, to cover a more exact measure of the hazard assumed. Classification of the risks remains unchanged in the new schedule of rates.

The First Hundred Thousand Are Hardest

By JOHN F. WEEDON, Peoples Gas Light & Coke Co., Chicago, Ill.

SHE was a very nice lady, cultured and refined, but there was a tinge of acrimony in her voice, and sarcasm in her speech.

The gas company clerk was patient, and anxious to combine courtesy with service. He wanted to be informative and helpful.

The matter under discussion was the lady's gas bill. She had more than a faint idea it was larger than it should be. Her pre-conceived conviction on the subject, was caulked and double riveted in the seams and perfectly gas and water tight.

"Then," she said, when it had been fully demonstrated that the meter had been tested and found correct, and there was no error in reading the index, "will you please tell me what I used the gas for?"

"That, madam, is impossible!" said the clerk. "All we can do is to install meters that measure the gas accurately, and use due diligence and care in getting the correct readings from the dial. A meter will not register unless the gas passes through it, any more than a steam engine will run unless steam goes through the cylinder. However, if you want to keep a check on it yourself, daily, or weekly, you can do so by simply keeping a record of the gas consumption."

"How can I do that?" inquired the lady.

"It is a very simple matter," said the clerk. "Here is a model of a meter index. The hand on this first dial runs clockwise, turns to the right you know. The hand on the second dial turns to the left, but the third one turns to the right again, and the fourth to the left. Now

The Artist's Conception of a Gas Meter Short Course

suppose the hand of the dial at the extreme right is pointing to the 0, or nearly so, it is not read as an 0 because the hand of the dial next to it has not yet passed over the 0 on its face; likewise you notice the hand at the second dial is close to the 0, but the one previous, at the left end, is between the 8 and the 9. Now none of these hands register the number which they appear to be nearest to, except the left hand one, because in each instance the previous dial hand has not yet completed the circle, in other words has not passed the 0. Therefore, the reading of this meter would be 9-9-9-8-. It is perfectly simple," said the clerk.

"Why how fascinating," said the lady. "And it is just as simple as Sanskrit. Some of the hands turn one way and some another and the figures you read are not the figures the hand is nearest but something else. How perfectly wonderful. Why don't you patent the idea and print meter readings in the papers now that Cross Word Puzzles are beginning to pall on the public?"

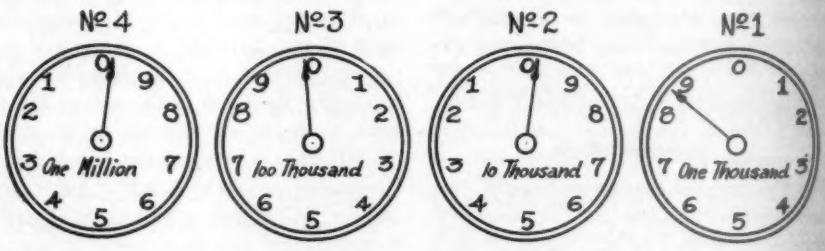
And so the lady paid her bill and went away, a life-long misanthropist on the subject of gas companies and gas measurement.

It would be hard to estimate the amount of public prejudice against gas companies for which this mystery of measurement is responsible. If a woman goes into a butcher shop and selects a leg of mutton, which she estimates weighs about eight pounds, and the butcher throws it on a scale and it registers ten pounds, she doesn't call him a daylight robber and cheat. No, she steps over to the scale and reads for herself what the dial shows—a plain 10—and she is satisfied she is getting ten pounds. A meter index which reads as plainly as an automobile speedometer would serve the same purpose for the gas customer. At least the figures would be there in plain sight, if she, or he, wished to check them.

The general adoption of a "direct reading meter" would do a great deal towards dispelling the distrust with which many customers now regard their gas bills.

Therefore the matter becomes something for the publicity director to concern himself about. Meters and methods of securing meter accuracy are not, perhaps, in his province. But doing everything possible to secure and build up public goodwill most certainly is. In the opinion of the writer, the adoption of plain figures on a meter dial would do as much as any one thing the companies have done, or may do, to establish goodwill and co-operation between the company and its customers. With the meter itself we have no quarrel. It is an excellent device that seems capable of little improvement, except in this one particular.

Another point which should commend itself to company officials in favor of such



Nobody Argues with the Taxi Driver if His Meter Is on the Job. Why Not Apply the Same Idea to Gas Service?

a change is the fact that it would greatly lessen the cost of reading meters, and practically do away with the expensive "verifications" and checking systems which are now necessary to insure accuracy in billing. It seems conservative to estimate that a meter reader could read just twice as many "direct" reading meters as he can decipher the "index" type. Cutting meter reading costs in half would effect a considerable saving in many companies.

In some states a meter is allowed to remain on a customer's premises not more than seven years, after which it is taken in, taken apart, thoroughly overhauled and re-assembled. By inserting a new type of recording device at this time, which it is believed can be done without changing the gearing or otherwise interfering with the accuracy or safety of the mechanism, and at very little additional expense, an entire community could be supplied with direct reading meters without any immediate or extravagant outlay of large sums of money.

The writer has no particular direct reading device in mind, but it would be an insult to the mechanical geniuses of the country to suppose that a perfectly safe, inexpensive device could not be manufactured, IF THE GAS INDUSTRY DEMANDS IT. In all probability there is just such a device to be had, with all the requisite qualifications for adoption, which would rapidly appear if inquiries were made for it.

The subject is one that should interest many departments of the gas company, primarily the meter reading department, whose work it would greatly lighten; secondly the customers accounting department, which would also be relieved of much intensive watchfulness. The payroll savings effected should interest those responsible for company expenditures, but the big thing of all, to my mind, is that it is a bid for public goodwill and increased confidence.

The public are thoroughly familiar with the speedometer type of recording device, and would take readily to a similar device on gas meters.

But the change—if on due consideration it is deemed desirable—will not come from outside of the industry. The agitation must come from inside. If gas men will consider this matter from all angles, and—finding it good—make active and earnest search and inquiry for a suitable device, then, and not till then, the direct reading index on consumers' meters will become an accomplished fact.

The Order of the Day

THE New York Telegram calls attention in its editorial columns to a recent notice by President Geo. B. Cortelyou of the Consolidated Gas Company to all its employes.

"Politeness and consideration at all time at the hands and from the lips of employes of public service corporations," says the Telegram, "is something to which those who pay the bills are clearly entitled. This is a fact that used to be flagrantly overlooked on the part of many employes of railway and traction lines, utility corporations and natural monopolies generally. Of late a change has come over a situation hitherto deserving sharp and adverse criticism. The men who run big utilities are learning something."

Following is President Cortelyou's order to all gas company employes:

"The good will of the public rests to a very great extent upon the character of the service we render. *The manner in which service is rendered is of outstanding importance.* Our transactions with our customers may be efficiently and promptly carried on; but, if they are not attended in every instance by unfailing courtesy and politeness, our serice falls below the high standard which this company requires. Please see to it that the character of the service rendered by this company is maintained at the high standard we have set, and let us surpass that standard wherever possible."

Gas Being Advertised In National Mediums

A PROGRAM of national advertising, featuring the manufactured gas industry as an essential utility and an attractive investment opportunity, has been started by Hambleton and Company, investment bankers of New York and Baltimore.

The initial advertisement in the series appeared in the July issues of the following magazines: American, Harper's, Century, Atlantic Monthly, Scribner's, World's Work, and Review of Reviews. It is believed that the advertising in these mediums will be continued well into 1926.

There are two significant features to this campaign. In the first place, the story of gas is told to the American people through national advertising on a large scale. It is the first advertising of this kind since July 7, 1923, and July 12, 1924, when the General Gas Light Company devoted two full pages of the Saturday Evening Post to important good will messages on the industry. Secondly, the creators of the campaign are investment bankers whose faith in the gas business and its future growth has led them to take this important step, on their own initiative.

For the past two years, and more particularly during the last few months, it has become apparent that investment bankers who have done a large business in public utility securities were becoming more and more interested in the favorable position occupied by the gas industry. Headquarters staff has furnished many of these organizations with voluminous data on the business and there has been a constant interchange of information for a long time, culminating, as anticipated, in an advertising campaign sponsored by bankers who have made a careful investigation of the gas field.

Fortunately, all this publicity has preceded the Industrial Gas Advertising program instituted by the Industrial Gas Section of the Association. This advertising started in the July issues of thirty leading trade magazines and appeared simultaneously with the national advertising of Hambleton and Company. Thus,

GAS
The indispensable servant of homes industries and nations
IF GAS were rubbed overnight of its power to serve, mankind would have a better understanding of what the gas utility really is.
For instance, there would be makeshift breakfasts in millions of American homes. Industry would be demoralized. Great factories, deprived of fuel, would be shut down. The exhaustion of our natural resources — a crisis which now alarmingly threatens — would be hastened. Progress would be halted. Prosperity would decline.
As a public utility, the gas industry belongs to the people whom it serves and whose money is profitably invested in expanding that service. The public should understand the gas utility, its present service, its future capacity and its needs. Write for the booklet, "Gas — An Essential Utility and an Opportunity."
HAMBLETON and COMPANY
Investment Bankers
ESTABLISHED 1919
NEW YORK and BALTIMORE

This Ad Appears This Month in Atlantic Monthly, Review of Reviews, Century, Harper's, Scribner's and World's Work.

the industry has two national campaigns under way at the present time, with the prospects favorable for more entries in the near future.

As this article goes to press we are in receipt of proof of a full-page advertisement of the General Gas Light Company appearing in the Saturday Evening Post of July 11, 1925. This is the third year that this company has made a substantial contribution to a better understanding of the gas industry by including a good will message in its regular advertising program.

COOKING IT UP

THE OTHER day we heard of a consumer being persuaded to replace his gas cooker by an electric one. The electrical engineer who took the order accepted the gas cooker on part payment and *had it installed in his own house.*

The moral is that of ancient days: "Actions speak louder than words"—South Metropolitan Gas Company's "Co-Partnership Journal."

A.G.A. Plans Biggest Convention Program of Its History

AS Sec.-Mgr. Forward indicated in his editorial in the May issue of the MONTHLY, the 1925 A. G. A. Convention program will be grouped around one central theme, which will be indicative of the future of the gas industry. The various sections of the Association, through their committees, are endeavoring to build such a program and have completed their work so far that it is already possible to make a number of preliminary announcements.

The 1925 Convention Sticker Supplied on Application to Headquarters. Order Now.

The various conferences which were held during the period since the last convention have cleared the way for what will undoubtedly be a fruitful discussion of both the immediate problems and the opportunities that confront the gas industry at the present time.

ACCOUNTING SESSIONS

Among the features of the Accounting program will be the report of the Committee on Relations with Customers for the presentation and discussion of which the entire Tuesday afternoon program has been provided. Particularly interesting sub-committee reports will be presented on Gas Company Standards in Treating with Customers and on the Use of the Telephone in Dealing with Customers.

The Accounting Section is bringing the purchasing agent into the Association activities through the medium of a paper to be presented by J. M. Knowles which will deal with the purchasing agent's contacts with other company departments and outside agencies.

The report of the Committee on Customers Accounting will describe fully the experience of the Public Service Electric & Gas Company in changing their entire system of customers accounting to a modified form of the so-called Baltimore System of Bookkeeping Without Books and at the same time arranging for centralized billing on a combination bill. This will involve some up-to-date improvements in billing machines which will be demonstrated to the members through the Accounting Section exhibit on the Steel Pier. The actual billing operations of a number of the Public Service situations will be carried on in the Accounting Section booth.

The Report of the Committee on Analysis of Gas Company Statistics will make definite recommendations as to standardization of questionnaire forms presented to member companies from all agencies including directories, government bureaus, investment houses, etc. The sub-committee on Development of a Cost System for Gas Companies will present a complete report on allocation of costs

of service for the use of member companies.

ACCOUNTING SECTION EXHIBITION

This is the fourth consecutive year that the Accounting Section will present an exhibit at the convention, showing the modern methods of accounting in the different branches of this work.

The committee chosen to prepare this exhibit are representatives of companies of all sizes, so that visitors may be assured of seeing displayed systems that can be applied to their own work, regardless of the size of their companies. The committee is as follows:

P. D. Warren, *Chairman,* Chicago, Ill.
J. J. Armstrong, Toronto, Canada.
G. S. Cremer, Brooklyn, N. Y.
J. L. Conover, Newark, N. J.
H. F. Frey, Allentown, Pa.
A. R. Keller, Syracuse, N. Y.
W. G. Murfit, Newtown, Pa.

The first booth will contain an exhibit of the bookkeeping system that has just recently been installed by the Public Service Electric and Gas Company, Newark, N. J. This will be an actual working exhibit showing in detail the complete system, and a sufficient number of attendants will be on duty at all times to explain how the system is operated and how it can be applied to other companies which operate under different conditions than the Public Service Company.

In connection with this exhibit, the committee has prepared a surprise which it has no intentions of divulging at this time, but if anyone goes home from Atlantic City without having seen this feature he will have missed one of the most entertaining and instructive exhibits on the pier.

In the next booth will be the exhibit of a modern system of "STORES ACCOUNTING." It is only in late years that careful study has been given to this subject and the committee believes that the system used by the United Gas Improvement Company, of Philadelphia—who will make the exhibit—is one that deserves careful study and consideration.

In the third booth will be found a very interesting exhibit of statistical forms which is being prepared by G. S. Cremer, of the Brooklyn Union Gas Company, and those who know Mr. Cremer and his enthusiastic work along this line will assure you of an exhibit that will be highly educational.

An invitation is extended to all gas men to visit these booths, not only for the purpose of looking at the exhibits, but to take advantage of the arrangements that have been made for their comfort and convenience.

NATIONAL CONFERENCE ON INFORMATION COMMITTEE WORK

Under this general title will fall all convention activities this year of the Publicity and Advertising Section. The purpose of the conference is to bring out the fullest and frankest possible discussion of what is being done and what ought to be done as between this Association and its member companies on the one hand, and the committees on public utility information on the other.

As its contribution to the general program, the Section expects to have two fifteen-minute addresses by prominent executives on the subject, "The Public Utility Information Committees and the Gas Industry of Tomorrow." One address will reflect the viewpoint of the average gas company executive while the other will deal with committee work as seen from the inside. These addresses are scheduled for the general session program of Wednesday morning.

On Tuesday afternoon the Section will hold a luncheon and round table discussion in the Traymore, invited guests including some of the best known men in the utility business, and representatives of the information committees. The purpose of this meeting is to enable the committee directors and their chairmen to become personally acquainted with the heads of large holding companies and other important utility organizations and discuss informally with them some of the more important developments that are taking place in the business.

The National Conference on Information Committee Work will be held in the Traymore on Wednesday and Thursday afternoons. Tentative plans for the program include addresses on the following:

"What an Information Committee Is and What It Is Not. What It Can and Cannot Do for the Gas Industry."
"The Newspaper Contact. How Is it Accomplished? What Is Its Value?"
"In Fifteen Months, 1,850 Talks on the Utility Business Have Been Made to 262,000 Persons. How It Is Done."
"By-Products of the Committee Movement."
"The Gas Man's Place in the Committee Movement."
"What the Committee Movement is Doing for the Gas Company Manager."

Three speakers will talk on each subject. The first will cover the field in a general way, and the other two will develop the theme to include supplementary activities.

This is the first time that a national utility association has devoted so large a portion of its convention program to the state committee work.

COMMERCIAL SESSIONS

The Commercial Section this year is giving intensive study to the particular problems involved in the undertaking and promotion of the Three Year Sales Plan now adopted for its present and future activities. Hence this Section will not attempt a joint program with other Sections as in previous years.

Because of the requests of many members of this Section, and to bring about closer co-operation with the manufacturers, who are assisting materially in furthering the Commercial plans, the Commercial Section has decided to devote one of its sessions to an official and thorough inspection of the Exhibition of appliances on the pier. This will be done on Thursday afternoon, October 15.

This schedule leaves two afternoon sessions, and by a judicious arrangement of topics and speakers, all of the varied activities of a gas company commercial or new business department will be covered in the addresses and discussions.

Committee reports on sales stimulation, home service, house heating, architects' and builders' service and refrigeration will be presented in brief form orally by the chairmen, accompanied by complete and detailed printed reports. Thus more time is to be given to the topics of more general application. Considerable attention will be devoted to the various forms of advertising—newspaper, direct-mail and window and store display—on which subjects several outside experts have been invited to speak, following the practice found so valuable at the two Summer Sales Conferences held by the Commercial Section at Mohonk and Gloucester this year. Sales organization and selling methods will also receive consideration, and in particular emphasis will be given to discussion of the work of the Gas Sales Association of New England in arriving at sales quotas, under the leadership of Wm. Gould.

The interest shown in the new A. G. A. Testing Laboratory by commercial men will be further intensified by a practical discussion of the commercial aspects and value of the Laboratory by its director, R. M. Conner. The themes for the addresses as now scheduled are:

Opening Remarks by Chairman.
The Job Ahead in Selling.
Organizing the Sales Department.
Developments in Home Service.
Direct-Mail Advertising.
The Commercial Significance of the A. G. A. Laboratory.
Selling House Heating.
Setting Sales Quotas.
Refrigeration by Gas, When and How.
Nationalizing the Gas Industry.
Selling Gas to the Architect.
What the Architect Needs from You.
Progress in House Heating.
Better Sales Letters.
Window and Store Display.
Selling Direct to Customers.

INDUSTRIAL GAS SESSIONS

At the meeting of the Managing Committee of the Industrial Gas Section held in Baltimore, June 26, a committee was appointed to plan the section's convention program and to make final selection of authors of papers to be presented. This

committee has met and has laid out the following program.

The Industrial Gas Section will have three sessions during the convention. In designing the program the committee had in mind that the first session shall be given over to fundamental subjects of general interest, the second session to the subjects affecting the merchandising phases of industrial gas, and the third session to cover the technical phases.

The first day will include the report or opening remarks of the section's chairman, report of the Nominating Committee and election of officers for the coming year. In addition, reports will be received from the section's Committee on Policy and from its Survey Committee. At this meeting it is planned that a paper on "Rates as Affecting the Industrial Gas Business" will be presented by a gas company executive who has given considerable thought to the matter and contributed much on the subject.

The second day's program will open with a paper on "The Organization of an Industrial Fuel Department." Two authors have been selected for this, one of whom will be a representative of a large gas company, the other of a smaller gas company. Following this, reports from the section's Publicity Committee, Advertising Committee, Committee on Industrial Salesmen, and Co-operative Committee on Contact with Educational Institutions, will be presented. This day's program will be closed with the presentation of a paper on "Advertising" by a representative of the advertising field who has specialized on the particular subject of industrial advertising.

At the third session, reports from the section's Research Committee and Progress Committee will be received and reports from industrial representatives on those General Committees on which the section has representation. Three papers will be presented at this session, one on the subject of fuel competition, what our strongest competitors are doing and what we must do to meet this competition. A second paper on insulation, particularly with reference to househeating, will be presented by a representative of a company who have done considerable work along these lines. The third paper will be on the important subject of combustion control.

TECHNICAL SESSIONS

On the first day J. A. Perry will present a paper "Types of Gas Plants and Quality of Gas Best Suited for the Development of the Gas Industry" and will open up a vital subject for discussion on the afternoon of the day when this subject will be presented from another angle before the General Sessions by H. C. Porter. Professor Harry A. Curtis of Yale University will present a paper on "By-Product Ammonia and the Air Nitrogen Process." A very splendid report by the Water Gas Committee will occupy the entire Thursday afternoon session, one of the features of this report being the latest development with regard to the Jeffries-Norton Oxygen Plant at Worcester, Mass.

The entire Wednesday afternoon session will be devoted to the report of the Distribution Committee. Data and recommendations developed at the recent Distribution Conference in Detroit will be presented and further discussed at this session and a full opportunity will be given distribution engineers for the consideration of the many problems that confront them in their work.

It is hoped that it will be possible to submit a progress report of the tests of carbonizing plants being conducted under the auspices of the Carbonization Committee which should prove of extreme interest to production engineers.

FLOYD PARSONS has written a discussion on "What Price Sunlight?" which appeared in the July 25 issue of the *Satevepost*. It is well worth careful reading by every member of the Association.

The Laboratory Prepares to Test Appliances

By R. M. CONNER, Director of the Gas Appliance Testing Laboratory

WORK of re-modelling buildings donated by the East Ohio Gas Company has been completed and the Laboratory force has moved in. During the past month two additional engineers have been added to our force. One has been assigned to the Bureau of Standards to assist them in the work of calibrating Laboratory equipment which they have prepared for us and in conducting certain joint research work with our laboratory which they plan. In this manner very close co-operation is assured between this governmental agency and our Association.

Practically all of the larger types of equipment necessary to complete the Laboratory have been donated by our manufacturer members. This is in line with a resolution passed by this section in which they approved our Laboratory plans and agreed to donate necessary equipment. A list of those to date who have signified their willingness to assist the Association in this manner and the equipment they have furnished follows:

American Meter Company—Calorimeter, density apparatus, and wet test meters.

Cleveland Meter Company—Dry tin type test meters.

Equitable Meter Company—Pressure regulators.

Metric Meter Company—Certified thermometers.

Foxboro Company—Recording pressure gauges.

The P. H. & F. M. Roots Company—Gas compressors.

Ruud Water Heater Company—Hot water heating system complete.

Quite a large number of additional manufacturers have been communicated with, but their replies have not been received as this article goes to press. It is very significant that all of those from whom we have heard have expressed their willingness to assist us and seem to regard our requests for equipment as a compliment to their product.

Work of testing gas tubing will start immediately. All of our members who manufacture such products have been requested to furnish their samples for test. Rules governing the conduct of this work are entirely too lengthy to be covered here. However, our tests will follow in exact detail the regulations set forth in "Standard Performance Specifications for Flexible Gas Tubing." It is suggested that manufacturers to whom this information applies familiarize themselves very thoroughly with these specifications, copies of which, if not on hand, may be secured from Association Headquarters.

The work of approving appliance specifications is under the general supervision of a committee which represents all branches of our industry and interested national agencies. It is composed of the following members:

Arthur H. Hall, *Chairman*, Central Union Gas Co., New York, N. Y.

Representing Gas Companies

R. B. Harper, The Peoples Gas Light & Coke Co., Chicago, Ill.

N. T. Sellman, Cons. Gas Company of N. Y., New York, N. Y.

L. B. Wilson, Jr., Cons. Gas, Elec. Light & Power Co., Baltimore, Md.

C. C. Winterstein, The U. G. I. Contracting Co., Philadelphia, Pa.

Representing Manufacturers

W. E. Derwent, Geo. D. Roper Corp., Rockford, Ill.

B. B. Kahn, Estate Stove Co., Hamilton, Ohio.

F. H. Knapp, Pittsburgh Water Heater Co., Pittsburgh, Pa.

H. W. O'Dowd, Standard Gas Equipment Corp., Jersey City, N. J.

W. T. Rasch, A. H. Wolff Gas Radiator Co., New York, N. Y.

A. Stockstrom, American Stove Co., St. Louis, Missouri.

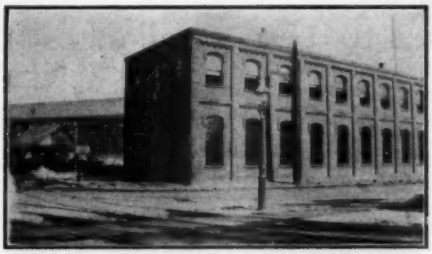
Representing the United States Bureau of Standards

E. R. Weaver, Bureau of Standards, Washington, D. C.

Representing the United States Bureau of Mines

A. C. Fieldner, Bureau of Mines, Pittsburgh, Pa.

Representing the United States Public Health Service



View of Main Laboratory Building from Southeast, Machine Shop, East Ohio Gas Company, Cleveland, O.

Dr. R. R. Sayers, United States Public Health Service, Washington, D. C.
Representing the National Association of Master Plumbers
J. L. Murphy, General Piping Contractors, New York, N. Y.

Sub-committees have been organized for the revision of gas range specifications, and preparation of new specifications on central house heating appliance, space heaters, and water heaters. The personnel of these sub-committees is also representative of the different branches of our industry. They are also listed:

SUB-COMMITTEE ON REVISION OF GAS RANGE SPECIFICATIONS

Representing Gas Companies
G. E. Bennitt, Cons. Gas Company of New York, New York, N. Y.
C. C. Winterstein, Chairman, The U. G. I. Contracting Co., Phila., Pa.
Representing Manufacturers
H. W. O'Dowd, Standard Gas Equipment Corp., New York, N. Y.
A. Stockstrom, American Stove Co., St. Louis, Mo.

SUB-COMMITTEE ON CENTRAL HOUSE-HEATING APPLIANCES

Representing Gas Companies
E. L. Hall, Portland Gas & Coke Co., Portland, Oregon.
E. D. Milener, Chairman, Cons. Gas Elec. Lt. & Power Co., Baltimore, Md.
A. A. Pihlman, Consumers Gas Company, Pontiac, Michigan
H. DeW. Valentine, The Peoples Gas Light & Coke Co., Chicago, Ill.
T. M. Foulk, Denver Public Service Co., Denver, Colo.
Representing Manufacturers
J. B. Allington, Rochester Gas & Electric Corp., Rochester, N. Y.
C. B. Babcock, C. B. Babcock Co., San Francisco, Calif.
E. P. Bailey, Jr., Bryant Heater & Mfg. Co., Cleveland, Ohio
H. L. Whitelaw, The A. H. Wolff Gas Radiator Co., New York, N. Y.

SUB-COMMITTEE ON SPACE HEATERS

Representing Gas Companies
K. R. Knapp, The U. G. I. Contracting Co., Philadelphia, Pa.
H. L. Masser, Los Angeles Gas & Electric Corp., Los Angeles, Calif.
E. J. Stephany, Chairman, Philadelphia Co., Pittsburgh, Pa.
E. C. Uhlig, The Brooklyn Union Gas Co., Brooklyn, N. Y.
Representing Manufacturers
E. V. Dailey, J. B. Clow Company, Chicago, Ill.
S. Gulbrandsen, Welsbach Company, Gloucester, N. J.
Harold Humphrey, General Gas Light Co., New York, N. Y.
G. F. Reznor, Reznor Mfg. Co., Mercer, Pa.
Representing U. S. Bureau of Standards
J. H. Eisman
Representing U. S. Bureau of Mines
G. W. Jones

SUB-COMMITTEE FOR SPECIFICATIONS ON WATER HEATERS

Representing Gas Companies
G. C. Carnahan, *Chairman*, The Peoples Gas Light & Coke Co., Chicago, Ill.
C. R. Miller, Portland Gas & Coke Co., Portland, Oregon
A. Rathemacher, Cons. Gas Company of N. Y., New York, N. Y.
Carl W. S. Walter, Cons. Gas Electric Light & Power Co., Baltimore, Md.
Representing Manufacturers
A. Friedman, The Cleveland Heater Co., Cleveland, Ohio.
P. H. Hamilton, The Sands Manufacturing Co., Cleveland, Ohio
E. J. Horton, Ruud Manufacturing Co., Pittsburgh, Pa.
E. A. Krah, Jr., Pittsburg Water Heater Co., Pittsburgh, Pa.

The chairmen of these respective committees have laid out their preliminary

Inside of Laboratory from North End Showing Supervisor's Office.

programs and signified their willingness and desire to assist in pushing this work to a hasty and successful conclusion. Rules governing the adoption of sub-committee specifications were quoted in the last issue of the A. G. A. MONTHLY.

The Bureau of Standards has for the last four or five years been conducting considerable research work on gas-burning appliances, the purpose of which was to develop a procedure for determining national safety standards. This will assist our Laboratory a great deal in outlining its course of procedure. This work was, by approval of the Executive Board, assigned to the Bureau. However, recent thought on this matter has prompted the conclusion that our Laboratory should partake in this work for two reasons: First, in this manner it can be more promptly concluded, and second, because we have in Cleveland several kinds of gases which are not available at the Bureau. Still further, the two organizations will no doubt be able to conclude this work from all standpoints more satisfactorily than either working alone. The following gases are available for use at our Laboratory.

Kind	*B.t.u.*	*Specific Gravity*
1. Natural Gas	1200	.64
2. By-Product Coke Oven Gas	525	.40
3. Carburetted Water Gas	550	.65
4. Pintsch Gas	1100	slightly over unity

The Bureau of Standards has installed equipment for producing different kinds of gases with heat values around 600 B.t.u. It is thought with the information we are able to obtain by tests on all of these many kinds of gases that we will be able to cover the desired field very thoroughly. Conduct of this proposed research work will in no way interfere with our regular testing program. Sufficient space has been provided and arrangements have been made to conduct these two lines of endeavor simultaneously.

While it is not possible at this time to indicate other than in a general way our probable program, we are quite sure of our announcement that gas tubing will be the first class of gas equipment tested. Following this will probably come gas ranges, as tentative specifications are already prepared for them and will need only revision before being placed in final form.

The Laboratory Managing Committee has decided that the interests of our industry can best be served by following a very definite program in our Laboratory work. From the standpoint of some manufacturers, it would probably appear desirable for the Laboratory to conduct appliance development work at this time. However, such a policy would undoubtedly interfere at the present time with our regular program. Our Managing Committee decided to adopt this policy to the end that our Laboratory might prove of the greatest value to all.

In planning the arrangement and installation of our Laboratory equipment, the best thought of the industry is being secured. The Laboratory director has visited, or plans to visit shortly, all of the more important gas appliance testing laboratories in the United States, this tour of inspection including the Bureau of Standards as well as the Bureau of Mines.

Laboratory management is vested in a highly competent committee, the personnel of which is as follows:

R. W. Gallagher, *Chairman*, The East Ohio Gas Co., 1405 East 6th St., Cleveland, Ohio
Arthur H. Hall, Central Union Gas Co., 529 Courtlandt Ave., New York, N. Y.
J. D. DeHart, Jr., Isbell-Porter Co., 46 Bridge St., Newark, N. J.
R. B. Harper, The Peoples Gas Light & Coke Co., 3921 S. Wabash Ave., Chicago, Ill.
N. T. Sellman, Consolidated Gas Co. of N. Y., 130 E. 15th St., New York, N. Y.

Messrs. Sellman and Harper are directly in charge of the testing laboratories and research work conducted by their respective companies. The manufacturers' representative, J. S. DeHart, Jr., president of the Isbell Porter Company, is a manufacturer, though not of appliances subject to test. Messrs. Gallagher

and Hall are executives of their respective companies and are thoroughly familiar with all of the general laboratory problems with which our industry is confronted today. Mr. Hall, in addition to being a member of the Managing Committee, is also chairman of the General Specifications Committee, which assures that the work of these two organizations will be properly co-ordinated.

The Laboratory is pleased to announce its readiness at this time to begin actual testing work on gas tubing, and conduct the proposed research work which we have before us. In addition to developing national safety standards we hope that the research work contemplated will bring forth many new and novel ideas in which the whole gas industry will be interested.

Editors to Study Safety

By CHAS. B. SCOTT
Bureau of Safety, Chicago, Ill.

THE attention of gas company executives, personnel department heads and editors of employe magazines is directed to the conference of the Plant Publication Section of the National Safety Council's Annual Congress in Cleveland, Ohio, on September 28.

It is only within the last few years that the plant publication or house organ has been recognized as a valuable factor in industrial relations work. This is particularly true in the public utility field. The great number of such publications that have recently been started indicate that the managements of numerous utility organizations have come to the realization that such a feature is well worth while.

It is encouraging to those in charge of accident prevention work to note, in many of these publications, safety departments devoted to subjects of interest to employees in connection with their accident records and lost time, and in which appear timely illustrations and articles prepared for the purpose of aiding in the reduction of accidents in the various departments of the company.

Each editor of a plant publication knows the requirements of the particular force he is serving better than any one outside the organization, and with this knowledge, and with his familiarity of plant conditions and operating practices and personnel, he shapes his program of publicity to most effectively reach those he most desires to reach and to correct those conditions or those methods most in need of correction.

An editor, like any other human being, will in time run dry of ideas. A periodic recharging or building up of enthusiasm and accumulating of ideas will not only be of benefit to the editor himself and the publication for which he is responsible, but it will have a stimulating effect upon the organization which, to a certain extent at least, is influenced by such a publication.

An opportunity for such recharging is afforded by the National Safety Council through its Plant Publication Section. Engineers attend annual conventions to keep abreast of the times in the development of machinery, equipment, operating methods, etc. Safety representatives attend the annual Safety Congress to gain new ideas and methods and means to more effectively conduct organized accident prevention activities. Why not offer your editor the same advantage, Mr. Executive? Send him to Cleveland, and see if the safety department of your plant magazine doesn't reflect new enthusiasm and inspiration.

The Survey Comes Down to Brass Tacks

By H. H. SKINNER, Central Hudson Gas and Electric Co., Poughkeepsie, N. Y.

WHAT has proved to be one of the most effective methods of securing a really large industrial business is that employed by the Kingston Gas and Electric Company. The engineering division of the industrial sales department undertakes a complete survey of a prospective customer's plant in order to ferret out every possible way in which his service might be improved and at the same time utilize the facilities of the Kingston Gas and Electric Company.

To illustrate the operation of this system and its success we have picked a typical report to a prospective industrial consumer who was generating his own electric supply by high pressure steam boilers with resulting poor economy. The engine exhaust and some high pressure steam was used for various processes throughout the plant. The report further shows how the use of a gas-fired steam boiler and an automatic water heater would enable the plant to save the salary of the plant engineer for at least six and possibly more months of the year.

Lack of space has made it necessary to delete some of the very interesting details by means of which so accurate an analysis was developed. A summary cannot do more than suggest the amount of labor necessary to gather the data, but those who are doing a similar work will be sure to appreciate the many hints and suggestions which can be applied in their own particular situations.

Following is the letter which accompanied the report to the prospect:

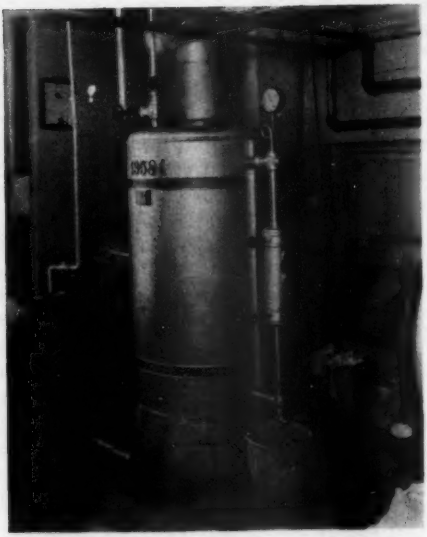
May 29, 1925

A. Jacobs & Bro.,
77 Cornell Street,
Kingston, N. Y.
Gentlemen:

The attached report shows that through the

This form of report which is a development from similar work done by Mr. Skinner while he was at Narragansett has been eminently successful in his present territory. The particular case described was sold practically solely on the basis of this report.—Ed.

This Plant Now Undergoing Alterations on the Basis of the Accompanying Report.



Gas-Fired Boiler of Capacity Recommended in the Report

discontinuance of the existing light and power plant throughout the entire year, and the purchase of all electrical service and some gas service from the Kingston Gas and Electric Company, a saving of $1,622.84 should be made in your yearly cost of operation.

We would suggest that the existing generating plant, together with the switchboard and other appurtenances be sold, and it may be that you will receive an amount sufficient to cover the cost of the gas-fired steam boiler and the large water heater together with the general cost of installing this equipment in your laundry.

We would suggest that you use the present boiler throughout a season of six months to furnish steam for the general building heating, steam to operate the dryers and hot water for use in the laundry.

Throughout the remaining six months of the year we believe your interests would be best served through the operation of a 15 h.p. gas-fired high pressure boiler used in connection with the dryers and the instantaneous water heater that we have recommended for the laundry.

In such a system of operation you would have no use for the present engineer throughout a non-heating season, and we would therefore suggest that he might be transferred to the shipping room or utilized elsewhere in some productive capacity.

An automatic boiler can be supplied that will furnish steam to your dryers at 140 pounds or 360°, whereas steam at 70 pounds is only 316° and steam at 85 pounds is only 327.6°.

Should you be interested later on in operating the existing boiler plant as a low pressure heating unit, you would perhaps wish to consider the use of either hard coal or fuel oil, thus necessitating less attention on the part of the fireman and increasing the saving or profit through the use of our light, power and gas service.

You will secure your greatest saving throughout the coming months of the summer due to the fact that you will consume no steam in heating the building. We therefore trust that we may receive your early consideration of this proposition and the installation of the gas-fired boilers and water heaters incidental to the successful use of our service.

Hoping that we may soon have an opportunity of covering any detail in which you are interested, we remain

Very truly yours,
Commercial Manager.

ESSENTIAL EXPENSE
OPERATION OF EXISTING POWER PLANT VERSUS PURCHASED SERVICE

Fixed Charges		**New Equipment**	
Resale value of generating unit expected to offset the cost of new gas equipment		One 15 h.p. O'feldt boiler licensed for 150 lbs. Price $905.00. One No. 8 Inst. water heater $385.00. Add installation	
Power Plant Labor		**Power Plant Labor**	
Day Engineer at $30.00 wk.	$1,560.00	Engineer acting as fireman (6 months)	$ 780.00
Night watchman also handles fires.		Night Watchman to also handle fires	
Coal Chargeable to Light, Heat and Power		**Coal Chargeable to Process Steam**	
Jan. 1st, 1924, to Dec. 31, 1924, 600 tons	3,654.00	361,458 lbs. steam. 45,182 lbs. coal	135.00
		Coal Used in Building Heating	
		219 net tons a season	1,333.71
Purchased Electric Service		**Purchased Electric Service**	
Power Service (1924) 18,440 k.w. hours	1,085 90	Estimated combined future light and power bills about 5,000 k.w. hrs. per month ($150.00)	1,800.00
Lighting Service (2,310 k.w. hrs.)	148.78		
Purchased Gas Service		**Purchased Gas Service**	
		Gas to operate the irons 518 M	
Gas consumed in the irons (518 M)	748.52	Gas for dryers (6 mos.) 513	
		Gas for laundry (6 mos.) 362	
		1,393 M	1,726.65
Miscellaneous Expense		**Miscellaneous Expense**	
Engine and Boiler room supplies	200.00	Boiler room supplies	100.00
General power plant maintenance	200.00	General boiler room maintenance	100.00
	$7,598.20		$5,975.36
Yearly saving in favor of purchased light, power and gas			$1,622.84

The report here continues with a careful and detailed description of the existing power plant. A 125 h.p. H.R.T. boiler supplies steam to drive the generator. The exhaust is used both for feed water heating, building radiation and laundry water heating. Direct high pressure steam can also be used for feed water heating and the laundry heater.

The present fuel is bituminous coal costing about $6.00 per gross ton delivered. Water is bought at a flat rate of $15.00 per quarter. The ashes bring a revenue of about $50.00 per year.

The next step is the calculation and analysis of the existing expenses for light power and gas purchased from the Kingston Gas and Electric Company. The figures for 1924 were as follows:

Gas, 518..1 M.C.F.	$748.25
Light, 2310 K.w.hrs.	148.78
Power, 18440 K.w.hrs.	1086.90

based on the industrial rates obtainable in the territory served by the Kingston Company.

PROCESS STEAM REQUIREMENTS THROUGHOUT THE DRYERS AND LAUNDRY

South Shirt Dryer No. 1

South End			
Equipment—43 sections, 11 linear feet	Total	473 feet	
21 sections, 5 linear feet		105 feet	
		578 linear feet	
North End			
Equipment—43 sections, 11 linear feet	Total	473 feet	
21 sections, 5 linear feet		105 feet	
		578 linear feet	
Summary of Surface			
Combined linear feet of 1¼" pipe inside of dryer			1,156 ft.
42 Return bends average 3-inch extensions equivalent to			14 ft.
Total linear feet in dryer			1,170 ft.

Outside diameter of pipe 1.66 inches.
Area factor, 7 linear feet, equivalent to 3 square feet.
Total pipe surface in the dryer 501 square feet.

North Shirt Dryer No. 2

South End	Total	580 ft.	
Equipment—40 sections, 14 ft. 6 in. linear feet		11 ft. 4 in.	
2 sections, 5 ft. 8 in. linear feet		591 linear feet	
North End	Total	551 ft.	
Equipment—38 sections, 14 ft. 6 in. linear feet		11 ft. 4 in.	
2 sections, 5 ft. 6 in. linear feet		562 linear feet	
Summary of Surface			
Combined linear feet of 1¼" pipe inside of dryer			1,153 feet
74 Return bends average 3-inch extension equivalent to			24 feet
Total linear feet in dryer			1,177 feet

Total pipe surface in the dryer—504 square feet.

STEAM CONSUMPTION OF SHIRT DRYER

South Dryer No. 1

Dryer No. 1 Total of 1,170 linear feet. Heating surface 501 sq.ft.
Air circulation by revolving fan.
Air changes unknown.
Schedule, 8:00 a.m. to 4:30 p.m. = 8½ hours × 5 days = 42½ hours
Saturday, 8:00 a.m. to 11:30 p.m. = 3½ hours
Total 46 hours

Dryer Temperature 9:00 a.m. to 5:00 p.m. Jan. 213 deg., average 18 readings.
Boiler Pressure 78 lbs. gauge as averaged in 18 readings.
Probable Pressure at Dryer 73 lbs. gauge or 318 degrees.
Interior temperature of dryer 213
Difference 105 degrees

Steam Consumed in Dryer

$$\frac{3 \text{ B.t.u. per hr.} \times 501 \text{ sq.ft.} \times 105 \text{ deg.}}{1{,}000 \text{ B.t.u. per lb. steam}} = 150 \text{ lbs.}$$

Weekly Steam Consumption 150 × 46 hrs. = 6,900 lbs. steam.
Equivalent Use of Gas

$$\frac{3 \text{ B.t.u. per hr.} \times 501 \text{ sq.ft.}}{540 \text{ B.t.u. per ft.}} \times \frac{105 \text{ deg.}}{80\% \text{ Eff.}} = 365 \text{ cu.ft. gas}$$

Weekly Gas Consumption 365 × 46 hrs. = 16,790 cu.ft. of gas.
Yearly Gas Consumption 16,790 cu.ft. × 52 weeks = 873,080 cu.ft. gas.

STEAM CONSUMPTION OF SHIRT DRYER

North Dryer No. 2

Dryer No. 2 Total of 1,177 linear feet of interior (1¼") pipe coil equivalent to 504 square feet of heating surface. Air circulation by revolving fan. Air changes unknown.
Schedule Uncertain. Probably under steam an average of not more than eight hours a week.
Dryer Temperature Probably 213 degrees like No. 1 Dryer.
Boiler Pressure 78 lbs. gauge at boiler. Probably 73 lbs. at dryer.
Temperature Difference in Dryer 105 degrees.
Steam Consumed in the Dryer

$$\frac{3 \text{ B.t.u. per hr.} \times 504 \text{ sq.ft.} \times 105 \text{ deg.}}{1{,}000} = 151 \text{ lbs.}$$

Weekly Steam Consumption 151 × 8 hrs. = 1,208 pounds steam.
Equivalent Use of Gas

$$\frac{3 \text{ B.t.u. per hr.} \times 504 \text{ sq.ft.}}{540 \text{ B.t.u. per cu.ft.}} \times \frac{105 \text{ deg.}}{80\% \text{ Eff.}} = 368 \text{ cu.ft.}$$

Weekly Gas Consumption 368 × 8 hrs. = 2,944 cu.ft. gas.
Yearly Gas Consumption 2,944 cu.ft. × 52 weeks = 153,088 cu.ft. gas.

LAUNDRY HEAT REQUIREMENTS

One 54" x 36" Washer—Actual interior dimensions, 57½" by 40" with interior contents of 41.8 cu.ft.
Estimated Use of Hot Water by Washer (No steam ever required)
Approximate use of water, 15 cu.ft. or 112½ gallons each filling.
Average use, 8 fillings a day or 900 gallons a day.
Note: American Laundry Machine Co. 300 gallons an hour on a 72" x 36" washer and on this basis 225 gallons an hour should be used in regular commercial laundry using a 54" x 36" washer including the rinse. Jacob's washer is filled only once an hour throughout the day.
One 72" x 36" Washer—Seldom used under existing conditions.
Three Laundry Tubs (14" deep x 23" wide—14" long at bottom and 22" at top)
Used to wash the starch containers. Probable use not over 100 gals. hot water day.
Total Estimated Use of Steam to Heat Water

$$\frac{1{,}000 \text{ gallons} \times 8.3 \text{ lbs.} \times 120 \text{ deg. (est.) temp.}}{1{,}000 \text{ B.t.u.}} = 996 \text{ lbs. steam a day}$$

$$\frac{1{,}000 \text{ gallons} \times 8.3 \text{ lbs.} \times 120 \text{ deg. (est.) temp.}}{540 \text{ B.t.u.} \times 80\%} = 2{,}306 \text{ cu.ft. of gas daily}$$

Equivalent to 57,650 cu.ft. gas a month or 690,000 cu.ft. of gas a year.
Two Starch Kettles (24" diam. x 26" deep) Only one in use.
Schedule 7:30 a.m. to 8:00 a.m. 1:00 p.m. to 1:30 p.m. 4:30 p.m. to 5:00 p.m.
Total use 1½ hrs. at one horsepower (34½ lbs.) or 51 lbs. day = approximately 1,275 lbs steam, month or 15,300 lbs. of steam year.
Equivalent to 2,950 cu.ft. gas a month or 35,400 cu.ft. gas a year.

Summary of Laundry

Small washer and tubs,	996 lbs. steam or	2,306 cu.ft. gas a day to produce steam
Starch kettles,	51 lbs. steam or	118 cu.ft. gas a day to produce steam
	1,047 lbs. steam	2,424 cu.ft. gas a day to produce steam
Equivalent Use	131 lbs. coal at an evaporation factor of 8 pounds per pound of fuel.	

SUMMARY OF PROCESS—STEAM

Dryer No. 1.—150 lbs. hr.	358,800 lbs. yr.	=	365 cu.ft. gas hr.	873,080 cu.ft. gas yr.
Dryer No. 2.—151 lbs. hr.	62,816 lbs. yr.	=	368 cu.ft. gas hr.	153,088 cu.ft. gas yr.
Washer (54" x 36") 996 lbs. day	286,000 lbs. yr.	=	2,306 cu.ft. gas hr.	690,000 cu.ft. gas yr.
Washer (72" x 36") Not in use				
Two Starch Cans (24"D x 26"D)	15,300 lbs. yr.			35,400 cu.ft. gas yr.
	772,916 lbs. steam			1,751,568 cu.ft. gas

Shirt Dryer Fired by Gas

Average of Steam by Dryer 301 lbs. or about 9 boiler horsepower.
Proposed boiler installation 15 boiler horsepower.
Location: Pit adjoining dryers if conditions permit.
Hot water service at 170 degrees Fahrenheit.
Proposed Source: Pittsburgh No. 8 Instantaneous Heater.
Location: Adjoining Laundry if possible.

The summary of the glass area of the building is given because lack of space prevents a complete enumeration of the separate window types and the number and area of each. In calculating heat losses each square foot of area must be accounted for.

GENERAL SUMMARY

Roof Area (exclusive of Towers) 184 ft. x 87 ft. Area 16008 sq.ft.
North Wall 962 sq.ft. Glass, 2431 sq.ft. Brick, Total 3393 sq.ft.
South Wall 615¾ sq.ft. Glass, 135¾ sq.ft. Doors, 2641 sq.ft. Brick, Total 3393 sq.ft.
East Wall 2164 sq.ft. Glass, 5012 sq.ft. Brick, Total 7176 sq.ft.
West Wall 3054 sq.ft. Glass, 4122 sq.ft. Brick, Total 7176 sq.ft.
Towers (Unheated) contain four 62″ x 92″ and two 62″ x 73″ Windows.
Total (exclusive of towers) 6795¾ sq.ft. Glass, 135¾ sq.ft. Doors and 14206 sq.ft. Brick.

BUILDING HEATING
HOURLY HEAT LOSS OF THE FACTORY AT ZERO TEMPERATURE

Total Glass Area—	North	962	
	South	615	6795 sq.ft. x 1.2 x 70 or 570,780 B.t.u. per hour.
	East	2164	
	West	3054	
Total Wall Area—	North	2431	
	South	2641	14206 sq.ft. x .21 x 70 or 208,828 B.t.u. per hour.
	East	5012	
	West	4122	

Floor and roof 32016 sq.ft. x .13 x 35 = 145,670 B.t.u. per hour.
Door area 135¾ sq.ft. x 1.2 x 70 = 11,424 B.t.u. per hour.
Estimated air change 624,312 cu.ft. x 1.26 = 786,633 B.t.u. per hour.
Total Heat loss of Building at Zero Temperature 1,723,335 B.t.u. per hour.
Credited Heat from Laundry 131,000 B.t.u. per hour.
Credited Heat from Dryers 301,000 B.t.u. per hour.
Credited Heat from Laundry Irons 111,780 B.t.u. per hour.
Total credited from Process 543,780 B.t.u. per hour.
Heat to be secured from Radiation 1,179,555 B.t.u. per hr.
Actual installed radiation 4,266 sq.ft. of surface.
Possible heat radiation per foot 240 B.t.u. per sq.ft.
Capacity of Heating System 1,023,840 B.t.u. per hr.
Probable efficiency of Heating System 61 degrees to 65 degrees interior building temperature with an outside temperature of Zero.

BUILDING HEATING—SEASONAL ESTIMATE ON THE HEAT LOSS THROUGH WALLS

Month	Heating Periods	Outside Temp. Above Zero	Below 65 deg.	Degree Days	Bld. Ht. Loss per Hr.	Fuel per Hr. at Zero	Fuel 24 Hrs.	Fuel Deg. Mr.	Fuel Deg. Hr.	Monthly Fuel
Oct.	31 days	56.9 deg. ave.	9.0 deg. ave.	279	1,179,555 B.t.u.	148 lbs.	3,552 lbs.	2.4 lbs.	58 lbs.	16,200 lbs.
Nov.	30	44.0	21.0	630	"	"	"	"	"	36,600
Dec.	31	34.1	30.9	958	"	"	"	"	"	54,700
Jan.	31	33.8	34.2	1060	"	"	"	"	"	54,800
Feb.	28	30.7	34.3	960	"	"	"	"	"	61,500
March	31	38.2	26.8	831	"	"	"	"	"	47,400
April	30	48.9	16.1	483	"	"	"	"	"	27,600
	212 days	40.4 deg. ave.	24.6 deg. ave.	5201	1,179,555 B.t.u.	148 lbs.	3,552 lbs.	2.4 lbs.	58 lbs.	298,800 lbs.
					At Zero Temp.	Fuel to Maintain 62° F. (148 deg. +62 deg. F.				

GENERAL SUMMARY

The above 298,800 lbs. of heating fuel shall be considered the net amount of coal consumed in a building containing 4266 sq. ft. of radiation. The above fuel is exclusive of the process steam and banking requirements and the **Building Heat Loss** of 1,179,555 B.t.u. represents the net heat loss after crediting the building with 543,780 B.t.u. per hour derived from **Process Steam.** **Standby Losses** on the boilers must be considered during October, November and April, and to some slight extent during other months or perhaps a total of 100 days in all throughout the heating season. Assuming 100 days or possibly 2000 hours of standby at 35 lbs. of fuel an hour, the total **Standby Losses** would amount to 70,000 lbs. = 35 tons a season.

Estimated Total Heating Fuel=368,000 lbs. exclusive of May which has 75 degree days and could consume 4300 lbs. on cool mornings plus 12,600 lbs. of standby losses or possibly 16,900 pounds of fuel in such case as the management desired to furnish heat during such a warm month.

BUILDING HEATING SUMMARY

Method	Bld. Contents	Max. Heat Loss	Net Loss	Radiation	Coal Consumption
General Factory	624,312 cu. ft.	1,723,335 B.t.u.	1,179,555 B.t.u.	4,266 sq. ft. Rate .8 lb. per cu. ft. BM.	
Average Experience	Exclusive of Towers	Losses per Hr.	At Zero Temp.	Surface Total	499,449 lbs.
		Credit from heat derived from **Process Steam**			90,364 lbs.
		Net fuel requirements including standby losses			409,085 lbs.
Emission of Heat from Radiation	624,312 cu. ft. Exclusive of Towers	Total Surface 4,266 sq.ft. plus risers on a fuel consumption of 123 lbs. per sq.ft.=			Total Fuel 524,718 lbs.
		Net fuel requirements including standby losses.			
Emission of Heat from Glass and Brick Walls Air Leakage and Other Losses	624,312 cu. ft. Exclusive of Towers	1,723,335 B.t.u.	1,179,555 B.t.u.	Rate 58 lbs.	Total Fuel
		Losses per Hr. at Zero Temp.		per Deg. Day	298,800 lbs.
				Standby Losses	70,000
				Possible heat in May	12,600
		Net fuel requirements including Standby Losses.			381,400 lbs.

GENERAL REMARKS

General average of all three methods 438,134 pounds of fuel=219 tons of Pennsylvania bituminous coal as burned under the existing 125 horsepower boiler at an average evaporation factor of eight pounds of water per pound of fuel. All standby and other losses are included in the 219 net tons. Also it is assumed that steam will be supplied at existing pressure.

"Coal Carbonization"

WE have just finished reading Horace C. Porter's book on "Coal Carbonization." This is the book which was published last winter by the Chemical Catalogue Company as one of the "American Chemical Society Series of Scientific and Technologic Monographs." It is a well-bound, well-indexed volume containing 442 pages and numerous illustrations, chart tabulations, etc., together with an introduction by Prof. Samuel Wilson Parr of the University of Illinois.

The book fills a long felt want in that there is collected and arranged concisely reliable information concerning the subject that is basic in the gas industry and about which too much cannot be known.

Among so many chapters, fifteen in all, that are interesting and informative it is difficult to select an outstanding one. But Chapter 13, on Low Temperature Carbonization Processes, is particularly useful for reference purposes when checking up or looking into proposed systems. It is frequently found that when comparison is to be made an historical record of what has been done is equally useful to the inventor and to the investigator.

Again, Chapter 12 on the Process of Gas Manufacture and Coal Carbonization furnishes definite and useful information on coal carbonization in horizontal and inclined as well as vertical retorts and chamber ovens. Complete gasification and gas making by the aid of oxygen are discussed briefly.

It is very apparent that the author of this book has carefully studied and absorbed all the available literature on American and European carbonization practice, the result being a comprehensive and authoritative text book that should be in the hands of the operators and students of the gas industry.

HOWARD H. ADAMS, formerly service sales manager of the Northern Indiana Gas and Electric Company, has been appointed manager of industrial relations of the Calumet Gas and Electric Company in connection with the new plan for employe representation recently inaugurated by Samuel Insull, president of the company.

He has been manager of industrial relations for the Northern Indiana Company since July, 1924, when the Employes Representation Plan was started in that company. He will continue with that work, but also will have charge of the operation of the Employes Representation Plan in the Calumet Company.

THE MANY FRIENDS of James T. Lynn, of Detroit, will be glad to hear that Mr. Lynn has recently undergone a successful operation and is assured of having his sight restored.

Selling Company Stock through Employes

By PERCY H. WHITING,
Manager, Customer Ownership Division, Henry L. Doherty & Co.

Percy H. Whiting

TO sell the preferred stock of your company to your customers, you must do two jobs:

1. Get the security properly advertised.

2. Get your employes to make enough good calls on your customers.

If you can reach those two objectives, then your sale will succeed. Nothing can stop it.

You don't have to know much about advertising to get good advertising written. You naturally hire somebody to do it. Here is an infallible method of getting the right man—if you have time:

Hire any good advertising man—any fairly good man will do provided he has never written any of this formal, stilted, we-don't-guarantee-we-are-telling-you-the truth stuff. Let him write the first campaign—it will probably be awful stuff. Then make this advertising man *sell* every day *all day* behind his own advertising. If he does not commit suicide from remorse over his first copy, he will necessarily learn why people buy, or do not buy, securities. He will learn that the purpose of advertising is not to brag about how big and great and fine the copy is and how smart the executives are—but to write advertising that will actually help employes to sell stock.

We have a test of security advertising that we believe is infallible. We put ourselves in the shoes of a prospect and, through his spectacles, read the advertisement. If, after reading it, we can say (for the prospect): "What the——do *I* care?"—we throw the copy away. It wont pay its way.

I'm sick of copy that bleats about how big you are and what you own and how much you earn. I like the copy that pictures me as owning the security and then tells me how the security serves me—how it protects my money, how it pays me dividends, how I can get my money out. Talk to me about "my company" and "my dividends" and "my money" and you hold my interest.

So much for advertising. It is easy to get (in time) and easy to test.

Getting the calls made is just about as simple.

We use two methods—one for a first sale; another for all subsequent sales.

Here are the steps for a first sale:

1. Send every employe a letter telling him that the sale is to take place and that it will offer him an opportunity to make some money.

2. Ask each employe to turn in the names of 20 people he would be willing to call on and talk to about buying the preferred stock. We can give each employe 20 cards and a little booklet which tells him the kind of people to call on—and the kind not to call on.

3. Hold sub-executives responsible for getting 20 prospects for every employe—and don't let them flop.

4. Send direct-by-mail advertising to the names sent in.

5. Hold meetings at which you pledge employes—

(a) To see 20 people in the 10 days the sale lasts.

(b) To tell them 10 points about the company and about its security that are contained in a little manual which we hand them at the end of the meeting.

Note that we don't ask them to "sell"—merely to "see 20 people in 10 days, and tell them 10 points about the stock."

6. Turn the 20 cards back to each man. Why all this hocus-

pocus? Why not send them out to sell?

Well, chiefly because they are not salesmen. If you ask the average gas employe to "sell", you ask him to perform what appears to him a miracle—an impossibility. But they can walk and they can talk and they can and will pledge themselves to "see 20 people and tell them 10 points."

If they do, the sale is a success.

So your final job is to get employes to make the calls. This we accomplish by requiring each employe to report each day to his immediate superior how many calls and sales he has made in the previous 24 hours. This information goes each day to the general manager. With this information in hand he can put on the pressure when, where, as and if needed—and if the calls are made, the stock is sold, and everybody is happy!

After the first sale this "polite fiction" of not asking to "sell" can be abandoned. They *know* they can sell—they know they can make money by selling. So we give them a little sales talk and let them go to it. If they make the calls and the sales talk, the stock will inevitably be sold.

Surely nothing could be more simple.

So easy is it that no company has any excuse for not securing customer ownership through employe sales except that:

1. It can't pay dividends.
2. It doesn't need good will.
3. It doesn't need capital.

THE SECRETARY OF STATE of Oklahoma has formally announced that efforts to secure referendum of House Bill No. 4, the revocable permit measure, have failed and that the law is now in effect.

65 Years as a Gas Man

HOW the life of a gas man may influence his community is told once more in a recent editorial in the Lawrence (Mass.) Telegram. The subject of the editorial had been with the gas company for sixty-five years and thus ranks second to John O'Connell of the Consolidated Gas Company of New York whose picture appeared in the March issue of the MONTHLY and who boasts sixty-nine years of gas service with his company. The editor of the Telegram calls it:

The Late Edmund E. Branch

A NOTABLE RECORD

Sixty-five years as an employe of one Lawrence concern, The Lawrence Gas Company, is the notable record that the late Edmund E. Branch made before he answered the last summons.

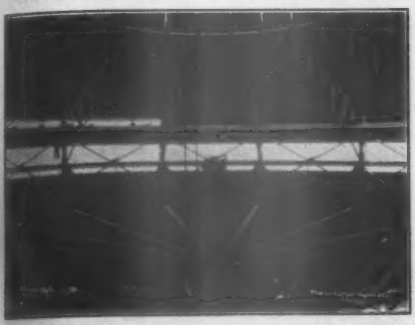
Sixty-five years in which he never missed a day without good cause, sixty-five years in which he grew from youth to stalwart man, from manhood's prime until he was far along the westering road leading into the sunset land.

Faithful, unassuming, doing each day's work well, Mr. Branch was one of that army of workers on whom, when all is said and done, depend all of our big and little industries, our superstructures of civic, state and natural edifices.

He was a typical Lawrence trained product. It is true that he was one of the old guard, as any one who works steadily sixty-five years for any one concern is likely to become.

But as he was of the young guard once, so the young guard in Lawrence today will become the old guard in time. And we believe that there are a host of Lawrence young men now who, in the years to come, will prove as real and true, as fine types of the old American ideal of the necessity of doing the work at hand well and faithfully and with the joy in work well done that does so much to keep the spirit happy and a man able to carry on as successfully and cheerfully far beyond the eightieth year as it did "Ed" Branch.

When Pictures Tell the Story



ABOVE IS A PICTURE of the interior of a typical waterless gas holder, showing glass enclosed top and folding ladder used for periodic inspection of the tar seal. The ladder hangs down the center of the holder and terminates on the piston, folding as the piston rises and unfolding as it lowers. In order to inspect the seal, the inspector goes up the stairway on the outside of the holder, along the walkway across the top, down the ladder to the piston, and across the piston to the seal, which he inspects at his leisure.

THE HEROINE strapped to the railroad track and the hero tied to the buzz-saw are a little out of date today, but their peculiar psychological appeal has been capitalized by the moving pictures. The thunder of hoofs to the rescue, whether it be to the relief of a stockade or of a victim of a leaky connection, contains the very essence of melodrama.

This may or may not have been the reason which led the Consolidated Gas Electric Light and Power Company of Baltimore to dramatize the safety idea as a means of educating their employes in resuscitation and similar work.

At a series of recent safety demonstrations, four skits were presented and acted by performers from various departments. The accompanying picture was taken from a sketch entitled "The Story of a Rotten Hose Connection" staged by the Fitting Department.

THE UTICA GAS AND ELECTRIC Company not only believes in good looks as an asset for a gas company, but also encourages competition among its various plants toward that laudable end. The banners in the photograph were awarded at the June meeting of the Superintendents' Association.

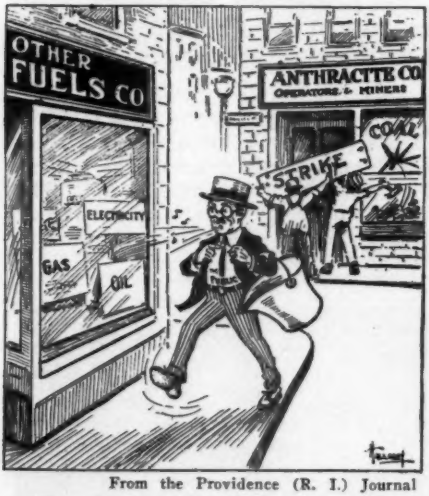
"WHAT IS WRONG with most booths you see at different shows," asks the Vul-

can Bulletin, which presently answers its own question: "Over-crowded, too cluttered with signs and appliances."

The Bulletin offers the exhibit on the preceding page as one from which other exhibitors might draw a lesson or two.

THE DESIGN FOR THIS FLOAT, which was used in the Tercentenary Celebration at Quincy, Mass., was suggested by an employe of the Citizens Gas Light Company of that city and attracted more than usual attention. The float contrasts conditions in the homes of today with those of 300 years ago.

HELPING THEIR COMPETITORS



From the Providence (R. I.) Journal

"THERE IS A LIMIT to the price that the consumer will pay," says Samuel D. Warriner, spokesman for the coal mine operators. "When that time is reached, he searches for substitutes and industry and invention provide them."

Gas Company Hopes to Improve Conditions

Copyright, Life Publishing Co.

How the Haverhill Gas Light Co., Mass., Adapted a Cartoon from "Life" as a Newspaper Advertisement.

CAST IRON PIPE JOINTS

To the Editor of the A. G. A. MONTHLY:

With the fear of clouding an issue which is now involved, I still feel that attention should be called to the following pertinent points:

1. It seems to be the consensus of opinion of those who have conscientiously tried to make all cement joints with cast iron pipe up to and including 16", that these joints are satisfactory and more economical. Some make satisfactory joints with the No. 1 Bell up to and including 12". Using the No. 2 Bell, from 8" to 20" inclusive has proven satisfactory in my experience.

2. On account of the danger of fracture, distribution engineers appear generally to be agreed that cast iron pipe should not be used for pressures in excess of ten pounds, especially in built-up sections. It is known that cement joints will remain tight at least up to this pressure. In fact, theoretically, cement joints, being stronger than the pipe, if properly made should withstand any pressure which the pipe will stand.

3. While it is not my intention to criticise the efforts of anyone to improve a practice, I fail to see the point in proposing a more expensive method of accomplishing a thing which is being successfully done.

Jos. LUCENA, Syracuse Lighting Co.

Gas Industry Flourishing on Pacific Coast

SOME interesting facts and figures on the growth of the gas industry on the West Coast are presented by the Pacific Service Magazine and Year Book of the Pacific Gas and Electric Company. As we read:

"Due to the more general use of gas for all purposes and, also, to the rapidly increasing rate of population in all the cities and communities receiving gas service, our production department was required to manufacture seventeen billion, seven hundred million cubic feet, an increase of one billion, nine hundred million cubic feet or twelve per cent over the previous year. The gas manufactured by this department represents three and eight-tenths per cent of the total manufactured gas produced in the United States last year, while our increase in gas sales for the year equals eight per cent of the total increase in manufactured gas sales for the nation.

"The more important work included the construction of five new gas holders, with a total storage capacity of approximately ten million cubic feet and seven new oil gas generators, with a total daily generating capacity in excess of twenty-five million cubic feet. This in addition to all of the necessary buildings, boilers, compressors and other auxiliary apparatus and gas mains necessary for the production, transmission and distribution of the increased volume of gas. The new gas generating capacity added during this year is equivalent to fifty per cent of the total installed capacity of the entire Pacific Gas and Electric Company's system for the year 1916.

"It required the services of twenty-two hundred employes and four hundred automobiles to carry on the work of this department. In excess of four hundred miles of pipe was purchased for the necessary extensions and replacements to increase the supply and render service to twenty-one thousand and seven hundred and six new consumers. The production of the gas manufactured for the year required the operation of forty-nine generators and the consumption of three million, two hundred and sixty-five thousand barrels of fuel oil.

"The work carried on by the Research De-

GAS WORKS AT THE PORTRERO, SAN FRANCISCO
Liquid Purification Towers and Purifiers. Boiler and Generating Plants in Background

partment has resulted in development of two new processes of considerable value to the gas industry. A study is now being made of the possibility of refining crude benzol collected from the high pressure transmission systems and the use of this product as a motor fuel."

Following is a table showing the

DIVERSITY OF INDUSTRIAL UTILIZATION OF GAS

By Pacific Gas and Electric Company Consumers

Type of Industries	No. of Such Users	Principal Application	Annual Usage in Cubic Ft.
Shipbuilding	10	Metal Treating	20,538,600
Paint and Varnish	28	Paint and Varnish Processing	5,883,600
Federal and Municipal	111	Water Heating	38,126,800
Paper, Wood, Leather, etc.	109	Seasonal Material	20,442,200
Oils, Drugs, Chemicals, etc.	95	Processing	35,362,700
Telephones and Telegraphy	29	Stand-by Gas Engines	15,354,300
Railroads	65	Metal Treating	35,546,600
Institutions	339	Cooking and Water Heating	85,510,600
Hospitals	117	Water Heating, Cooking and Sterilizing	74,376,700
Restaurants	1,589	Cooking and Water Heating	800,711,600
Hotels	316	Cooking and Water Heating	133,803,200
Automobiles	433	Heat Treating and Vulcanizing	73,487,800
Poultry Raising	45	Hatching and Brooding	10,644,700
Glass	25	Bottle Making	59,956,100
Sheet Metal Products	42	Heating Machines	53,094,600
Steel and Iron Products	252	Metal Treating	66,802,600
Electrical Products	77	Metal Treating	29,695,500
		Rubber and Paint Treating	
Iron Foundries	20	Core Ovens	5,380,200
Brass, Copper, etc.	76	Metal Treating	24,984,500
Printing	149	Type Melting and Drying	93,068,400
Vegetables, Fruits and Food Products	91	Cooking and Preserving	29,580,200
Meat, Fish, Food Products	135	Cooking and Preserving	38,766,200
Bakeries	489	Baking	226,851,900
Candy	214	Steam Kettles and Cooking	101,513,800
Coffee	46	Roasting Coffee	100,739,900
Textiles	59	Steam and Dye Vats	22,941,900
Industrial Space and Water Heating	187	Air and Water Heating	13,978 600
Laundries	280	Ironing and Washing	79,777,700
Dyeing and Cleaning	222	Dye Vats and Steam Cleaning	34,831,900
Varied Industries	392	Miscellaneous	51,756,600
Total number of users	6,042	Total Annual Usage (in cubic feet)	2,384,510,000

Philadelphia Co. Celebrates

Arthur W. Thompson, President

COMPETITION may not be exactly the word, but there does seem to be a certain spirit of healthy rivalry among our gas companies of late, who seem to be vying with each other in turning out a number of attractive and extremely interesting souvenir publications describing the work, history and ideals of their respective organizations.

The latest of these publications is an elaborate and, one might even say, beautifully conceived 50-page booklet issued by the Philadelphia Company and affiliated corporations entitled "Day and Night for Forty Years." The reason for its publication at this time was the recent opening of the new headquarters of the company on Sixth Avenue and William Penn Way, Pittsburgh, Pa.

"The purpose of this brochure," says the foreword, "is to present by comparison the methods of production, the usage and service rendered by the Philadelphia Company and Affiliated Corporations of the past with those of the present."

This comparative feature is stressed throughout the booklet on every page, and we are graphically shown, by word and picture, the advance in gas and other services during the past forty years. We see how the old-time gas oven, with its wasteful open-pipe burners, has been supplanted by modern automatic and conveyor-type furnaces, greatly increasing production with surprising economy in the consumption of gas; how the old method of heating by gas, with balls of fire brick placed in a grate or stoves with asbestos backs, has given way to modern gas heaters which give off many times the heat with the use of considerably less gas. And, since this is still primarily a natural gas com-

Bronze Tablet in the Foyer of the New Central Office Building of the Philadelphia Company, Pittsburgh, Pa.

pany, we learn how the modern district regulator has abolished the old-fashioned standpipe through which surplus gas was allowed to pass off into the air when consumption was low.

Practically all the appliances used in former years for the burning of natural gas, we are told, are now obsolete. Present-day methods save much of the gas formerly wasted by inefficient appliances, and the Equitable Gas Company, which supplies Pittsburgh, employs a corps of trained gas appliance inspectors whose duty it is to explain the economical use of gas and to suggest changes that can be made for greater economy and convenience.

The Philadelphia Company is to be complimented for its initiative and good taste which made the publication of this booklet possible.

"Municipal" (sic) Ownership

CAREFUL reading of the following editorial from the Brockton (Mass.) *Times* is recommended for those who may be interested in examples and results of municipal ownership of public utilities. The editorial is entitled

An Example

Not long ago, discussing the matter of public ownership, *The Times* referred to the municipal lighting plant at Wakefield as a case where the plan had failed.

From the Boston *Herald* we learn some more details of the situation.

"Some time ago, though the town had been spending thousands and thousands of dollars upon it, the electric portion of the plant became worthless and was shut down. From that time the town has bought its electricity from the Edison Company and resold it to the people, much of the time at a price in excess of that paid by the inhabitants of towns who buy direct from the company.

"Now the gas manufacturing end of the plant has given out, in spite of the town's spending within a comparatively short time large sums on it. The town light commissioners and finance committee accordingly recommended that this gas plant be shut down, and the gas bought from a private corporation and distributed by the town. They told the voters that it would cost $100,000 to put the gas plant in proper condition. In the event of the town's doing this, the price of gas will have to be advanced, whereas if it is purchased from a corporation the price will be materially reduced, with an annual saving to the consumers of $10,000 to $15,000.

"Now the almost unbelievable result is that this town of over 5000 voters decided 310 to 244 not to buy gas from the corporation, even though the cost to the individuals would be less, and to spend $100,000 on the town plant in order that the consumers may pay this higher rate.

"The Wakefield *Item* says that the meeting was packed; that there was present a very strong delegation of friends, wives, sisters, mothers and sweethearts of almost everybody who has a town job."

"There is no more possibility of making a success out of the utility business in this age minus expert advertising than there is in trying to get along without good engineers, capable accountants and auditors, salesmen and trained workers."—W. H. Hodge.

A Fifty Per Cent Industrial Load Factor

By R. R. L. MacLEOD, Empire Gas and Electric Co., Geneva, N. Y.

THE gas consumption of Geneva, N. Y., supplied by the Empire Gas and Electric Company, is evenly divided beween industrial plants and homes, and as far as we have been able to ascertain, it is the only city in the country where this condition exists.* Salesmen for appliance manufacturers all tell us that they have never found such a condition before in their travels about the country.

This condition is the result of hard work among the industrial concerns of the city. Our men sold gas to these firms in active competition with both coal and oil by convincing the manufacturers that gas was far better as a fuel. The control of heat and the fact that it was not necessary to tie up capital in storing coal or oil proved to be big selling points in inducing these firms to use gas fuel.

The large industrial load is undoubtedly a good thing. One of the firms which we supply uses 2,000,000 cubic feet per month, and we have other users nearly as large. If we were to divide this amount of gas among people who use only 3,000 cubic feet a month, you can see how many meters, not to mention meter readers and billing clerks, would be necessary to take the place of this one. We have had no service work for this big consumer for the last 18 months, which is also a considerable saving.

Geneva's gas consumption was 180,000,000 cubic feet last year, which is about 12,000 cubic feet per capita per annum. Gas is used here in making optical lenses, gas and coal ranges, shears and cutlery, house heating plants, cereal paste, and many other articles in daily use.

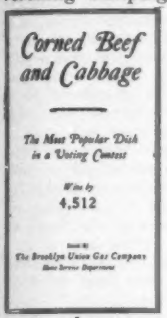
*If a similar situation prevails elsewhere, we should be interested to hear of it.—Ed.

Gas-Fired Ovens for Enameling Range Parts, Installed at Geneva, N. Y.

Brooklyn Union Goes After the Business

Miss Ruth Soule

THE Brooklyn Union Gas Company is evidently serving notice on the gas companies of the country to "watch our dust." They have started a Home Service Department, installed a permanent industrial gas exhibit, and launched a good will advertising campaign, all within the space of a few weeks. Each of these new activities is being run in connection with the New Business Department of which Prescott B. Wiske is manager.



With the beginning of the home service lectures, given by Miss Ruth Soule, head of the department, advantage was taken of a unique voting contest conducted by the United Restaurant Owners to determine the favorite dishes of New York restaurant diners. Approximately 180,000 ballots were cast, and of this number corned beef and cabbage received 23,061. The attention given this contest by all the Metropolitan dailies inspired George Kirchmer, claim agent of the Brooklyn Union, to issue a booklet, reproduced above, with the imprint of the Home Service Department containing recipes for the winning dish and others. Thousands of copies were distributed on request and did much to attract the attention of Brooklyn women to the new home service activities.

The permanent industrial gas exhibit has been situated in the heart of the business center of Brooklyn, directly next door to the Chamber of Commerce, of which most of the manufacturers and builders of Brooklyn are members. During the first month the exhibit was visited by 400 prospects.

The advertisement reproduced below is a sample of the copy which is being used in the local newspaper advertising campaign now under way. In connection with this advertising the New Business Department issues a weekly bulletin which is circulated among all employes of the company and which tells of the progress made in this branch of the business. It may be sufficiently interesting to quote from one of the bulletins:

1. The sales to builders are still going strong. During the last week 156 ranges were

A Corner of Brooklyn's Permanent Industrial Gas Exhibit

"Alice" No Longer "Sits By the Fire"
It is possible now to wander afield, enjoy the outdoors, or attend a matinee and return home in time to prepare a quick dinner.
The modern bride wants her home thoroughly gas equipped.
The equipment necessary for your home can be procured at any of our offices.
Telephone Main 6400
The Brooklyn Union Gas Company

sold for new homes in Brooklyn. In this number of sales was a new customer who had never bought ranges from the Brooklyn Union Gas Company. We are glad to sell this corporation.

2. The Industrial Division of the New Business Department supplied the Metal Package Corporation with a hot air heater and a conveyor drying oven for the purpose of drying metal parts. They use high pressure gas exclusively as fuel. The Selas system is the one operated.

A couple of 2-compartment sterilizing ovens, 25' in length each, were installed for the Charles Pfizer Company, Inc. They use these for sterilizing chemical products in conjunction with other gas applications throughout the entire plant.

3. The advertising copy attached this week is headed:

"Alice" No Longer
"Sits by the Fire."

We have had many favorable comments on the copy published last week. Invitation is open to all of our people for suggestions as to the copy for advertising.

4. A number of fellows in the Industrial Division of the New Business Department are making reputations as authors. Some of those who have added to their laurels are Mr. J. W. Piatt and Mr. Henry Behrman, who had articles appearing in Industrial Gas.

Your attention is called to one of Mr. Piatt's articles in the current issue of Industrial Gas on "Roasting Coffee by Gas."

It should be noted that the attention of employes is always called to the advertising copy which is to appear during the week.

A great deal of favorable publicity was received by the company for its publication of a four-page pamphlet entitled "Sixteen Ways of Avoiding a Summons" containing a series of sixteen pointers for automobile drivers written by Judge Lawrence C. Fish of the Brooklyn Traffic Court. Thousands of these booklets were distributed through the Brooklyn Safety Council, the Motor Dealers' Association of Long Island, the Jamaica Board of Trade, American Railway Express, the Yellow Taxi Corporation, churches, department stores and other agencies.

"Ads" That Work Twice

THE Utica Gas and Electric Company of New York has adopted the following form of notice which is sent, *together with advance copy,* to every one of its employees:—

To Our Employees:

You will receive herewith copies of our Good Will advertising which is scheduled to appear in the Utica daily papers the weeks of May 4th and 11th. These ads pertain to the activities of the Purchasing Department.

Our purpose in sending you advance copies of such advertising is to inform you regarding their nature before they appear in the newspapers. You are requested to familiarize yourself with their text so that you will be able to answer any questions concerning them that may be asked of you. People outside of the Gas and Electric Company will very likely inquire further concerning our departmental activities as a result of their appearance. You can readily use the material in these ads as a basis for your talk.

If there is anything connected with these ads that you do not fully understand, or further information that you desire, the Publicity Division will be pleased to inform you, or you can take it up directly with the head of the department concerned in the ad.

Your comments and constructive criticism regarding the advertising copy and its style will be welcomed at any time.

Home Service News from the Field

SINCE the work of the Home Service Committee was turned over to the present chairman two years ago the number of gas companies organizing such departments has grown and the results have been most gratifying.

In October, 1924, the number of gas companies operating Home Service Departments was fourteen. In February, 1925, the MONTHLY published a list (complete at that time) of thirty-two gas companies. This figure has doubled in five months, and it is now possible to report some sixty-four (64) Home Service Departments in gas companies throughout the United States and Canada.

Four gas range manufacturing companies have also established Home Service Departments.

Following are the additions to the list published in the February MONTHLY:

Brockton Gas Light Co., Brockton, Mass.
Wisconsin Public Service Corporation, Green Bay, Wis.
Westchester Lighting Co., Yonkers, N. Y.
Philadelphia Suburban Gas & Electric Co., Jenkintown, Pa.
The Pawtucket Gas Co., Pawtucket, R. I. (Blackstone Valley G & E Co.)
New York & Richmond Gas Co., Stapleton, New York City.
The Hyde Park Gas Co., Scranton, Pa.
Montgomery Light & Traction Co., Montgomery, Ala.
Wisconsin Valley Electric Co., Wausau, Wisconsin.
Great Falls Gas Co., Great Falls, Montana.
Beloit Water, Gas & Electric Co., Beloit, Wis.
Cambridge Gas Light Co., Cambridge, Mass.
Consumers' Gas Company of Toronto, Toronto, Canada.
The Peoples Gas Co., Pittsburg, Pa.
Union Gas & Electric Co., Cincinnati, Ohio.
Equitable Gas Co., Pittsburgh, Pa.
Iroquois Gas Corpn., Buffalo, N. Y.
Northern Indiana Gas and Electric Co., Michigan City, Ind.
Rochester Gas and Electric Corpn., Rochester, N. Y.
Utah Valley Gas & Coke Co., Provo, Utah.
Public Service Co. of Northern Illinois, Chicago, Ill.
York Gas Company, York, Pa.
Westboro Gas and Electric Co., Westboro, Mass.
Meriden Gas Light Co., Meriden, Conn.
Connecticut Light and Power Co., Norwalk, Conn.
Washington Gas Light Company, Washington, D. C.
Brooklyn Union Gas Co., Brooklyn, N. Y.
Mountain Gas Company, Saranac Lake, N. Y.
Petoskey Gas Company, Petoskey, Mich.
Boston Consolidated Gas Co., Boston, Mass.
Bangor Gas Light Co., Bangor, Me.
New Brunswick Power Co., Saint John, N. B.

Miss Betty Fox

ON MAY 4, 1925, the Beloit Water, Gas & Electric Company, operating in the City of Beloit, Wisconsin, population 25,000, opened their new Home Service Department. As this company serves only 5,000 gas customers, there was some hesitancy and considerable thought before the new venture was launched.

The attendance at the opening, which was slightly over 2,000 was far beyond expectations. Over 5,000 cookies and small cakes, all prepared by the Home Service Department, were used during the five hours of the informal tea, which was held in the company's show room.

Through the courtesy of The Peoples Gas Light & Coke Company, of Chicago, Miss Betty Fox, director of the new department, received her training under Mrs. Anna J. Peterson, director of the Home Service Department for the Chicago Company.

Mrs. Peterson and two of her assistants attended the opening of the Home Service Department, and to Mrs. Peterson is given a large share of credit for the opening attendance. Beloit is only about one hundred miles from Chicago, and many of her "radio pals" who hear her daily over KYW were present to meet her personally. Mrs. Peterson's appearance was also used to good effect in advance publicity.

Two sets of recipes are issued weekly and each sheet usually contains four recipes. These are placed where they are easily available to the customers and in ten weeks time they have *voluntarily* taken over 15,000 sheets or over 50,000 recipes home with them. This does not take into consideration the personal and telephone calls for recipes, full meal menus, party plans, etc., or calls for home visits, which have been numerous.

While the Home Service Department does not take full credit for it, it is a significant fact that the consumption per gas consumer increased 47 feet in May, 1925, over May, 1924,

not a great increase to be sure, but an encouraging sign.

The Beloit Water, Gas & Electric Company is the second company to install a Home Service Department in Wisconsin, the other one being in a property serving several cities and having one general director.

Miss Mason "On Demonstration"

MISS GRACE JO MASON of Trinidad, Colorado, is the director of the new Home Service Department established for the gas customers of the New Brunswick Power Company, New Brunswick, N. B. Miss Mason did the organization work and will continue to operate the department until she has a trained assistant to carry on the work permanently.

In conjunction with the Home Service work, cooking classes have been instituted. Classes are held Tuesday and Thursday of each week at 2:30 P. M., each session lasting about two and a half hours. A series of new recipes are given at each class and the actual preparation and cooking of the ingredients is demonstrated. More and more housewives are joining the classes, the lecture room being filled to capacity at each session. Over one thousand attended the four opening classes, it being necessary the first day to turn hundreds away through lack of room.

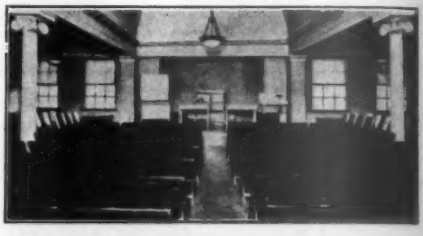
A model all-gas-equipped kitchen has been installed including a cabinet type gas range with automatic oven regulator and a box type stove with hand regulated oven. Also a thirty-gallon kitchen tank and water heater with timing device, kitchen cabinet, table, sink, etc.

Miss Mildred G. Brown

THE BANGOR GAS LIGHT COMPANY of Bangor, Me., is the latest gas company to announce the inauguration of a Home Service Department. The new activity will be under the direction of Miss Mildred G. Brown, a graduate of the University of Maine.

AN OFFER to the members of Miss Swann's Radio Cooking School of the use of the new Public Service Lecture Hall, seating approximately 1,200 people, for club meetings and similar gatherings was made by President T. N. McCarter, of the Public Service Electric and Gas Company, at the last radio party on June 16.

"This is, as you see, a large and capacious hall," Mr. McCarter said. "We use it quite a little ourselves for one purpose or another, but we do not propose to be selfish with it. We propose to put it at the service of our stockholders and our friends and our customers, with reasonable restrictions and reasonable rules and regulations. And I say to you now that any of your gatherings or clubs that may hold meetings large enough to utilize this hall may use it if they will take the matter up with our Real Estate Department, where they will find that the necessary arrangements will be made!"



New Lecture Hall of Providence Gas Co.

A SERIES of "Free Cooking Classes for Prospective Brides" was the April-May program of the Home Service staff of the Providence Gas Company in the new lecture room which has just recently been opened. The course included the preparing of breakfast, soups, quick breads, salads, meats, vegetables, cakes and pastry.

Chicago's Home Service Starts Them Early

Calumet G. & E. Installs Representation Plan

PLANS for the establishment of an Employes' Representation Plan in the Calumet Gas and Electric Company have been announced by Samuel Insull, president of the company.

Under the proposed plan, it will be possible for employes of the company to have an equal voice in settling all questions affecting relations between employes and the company, including questions of hours, compensation and working conditions.

A similar plan was inaugurated about a year ago in the Northern Indiana Gas and Electric Company, of which Mr. Insull also is president.

The general objects of the proposed plan are as follows:

To promote mutual understanding, justice and harmony in the co-operation of the employes and management.

To provide for protection and promotion of the interests of the employes as to pay, hours, conditions of work and all other matters affecting them as employes.

To improve the effectiveness of the management.

To foster efficiency and economy.

To insure fair returns to the stockholders.

To assure continuous and satisfactory service at just rates to the public.

This plan is based upon the experience of about 300 American companies.

A "constitutional convention" to be composed of elected employe representatives and a like number of appointed management representatives will be held soon for the purpose of drafting a constitution or plan under which the employes' representation plan will be operated.

A territorial joint council and a general joint council will be created, each body to be composed of representatives elected by employes and an equal number appointed by the management. These councils will have full power to take up all questions concerning employes in their relations to the company.

Mr. Insull, in a letter sent to all employes, outlines the plan as follows:

"The management, by the proposed plan, would have no part or influence in selecting the employe representatives. No person could vote in the primaries or elections, or serve as an employe representative, who is an officer, official, superintendent, or otherwise a supervisory official, or who has any power to hire, to discharge or to discipline. The management would appoint one-half of the joint council members, but as stated above, the employe representatives and the management representatives would have equal voting power on all questions coming before them.

"The employe representatives to be nominated and elected as described, and an equal number of management representatives, would make up the territorial joint council. These territorial councils would meet regularly every two months, and in special sessions when necessary on company time. They would have full power to take up all questions concerning employes in their relations to the company.

"The general joint council as proposed would be a body of higher jurisdiction, made up equally of employe representatives and management representatives selected by the territorial council.

"This Employe Representation Plan, when adopted and put into effect, will be administered by the supervisor of industrial relations. A considerable part of the duties of the supervisor of industrial relations will be to serve as the connecting link or intermediary between the rank and file of employes on the one hand and the officers, officials and supervisory employes on the other, particularly in connection with the Employe Representation Plan. He would preside at the various joint meetings, but without a vote, and his office door would always be open.

"Adoption of the proposed plan would open to each employe, or group of employes, at least four ways of getting fair treatment and full consideration of any matter affecting him or them: (1) By taking it up with immediate superiors in the department; or (2) with the elected employe representative of the voting unit; or (3) with the supervisor of industrial relations, or (4) by direct petition to the territorial joint council. The employe representative could also take it up with departmental officials or refer it to the territorial joint council.

"Procedure in all matters brought before the territorial joint council would be as follows: the council's action in a given case would be in the nature of a recommendation to the head of the department from which the matter had come. If he declined to follow the recommendation, the employe representatives could appeal to the next higher company official or to the general joint council; and the employe representatives in the general joint council could appeal, first to the vice president, and secondly, directly to the president of the company. In case of no agreement between the president and the employe representatives, the matter would be submitted automatically to arbitration."

Convention Prospects Bring Many Members

EVEN during the so-called "slack" months the stream of gas companies, manufacturers and individuals applying for membership in the American Gas Association continues unabated. Members joining now are charged only fifty per cent of the regular dues for membership good for the remainder of the fiscal year ending September 30. Following is the list of new members for the month:

GAS COMPANY MEMBERS

Greenfield Gas Light Company	Greenfield, Mass.
Nebraska Gas & Electric Co.	Lincoln, Nebr.

MANUFACTURER COMPANY MEMBERS

American Brass Co.	Waterbury, Conn.
Hall Manufacturing Co.	Toledo, Ohio
General Motors Truck Co.	Pontiac, Mich.

INDIVIDUALS

Spahn, George	Consolidated Gas Co. of N. Y., New York, N. Y.
Fullerton, Raymond J.	Consolidated Gas Co. of N. Y., New York, N. Y.
Price, Joseph	Consolidated Gas Co. of N. Y., New York, N. Y.
Williams, Frederick S.	Central Illinois Public Service Co., Springfield, Ill.
Craig, Calvin Dorman	Central Illinois Public Service Co., Springfield, Ill.
Streng, Lewis S.	Louisville Gas & Electric Co., Louisville, Ky.
Addison, W. Lee, Jr.	Louisville Gas & Electric Co., Louisville, Ky.
Uhlig, William F.	Brooklyn Union Gas Co., Brooklyn, N. Y.
Fastook, Leon E.	Public Service Electric & Gas Co., Bayonne, N. J.
Kosch, James Alphonsus	Public Service Electric & Gas Co., Paterson, N. J.
Petty, William A.	Public Service Electric & Gas Co., Bayonne, N. J.
Wickett, Gordon	Windsor Gas Co., Ltd., Windson, Ont., Canada
Gingra, Frank F.	Adirondack Power & Light Corp., Saratoga Springs, N. Y.
Burdo, Joseph A.	Adirondack Power & Light Corp., Saratoga Springs, N. Y.
Roohan, Patrick F.	Adirondack Power & Light Corp., Saratoga Springs, N. Y.
Brayer, Arthur N.	Co-Operative Foundry Co., Rochester, N. Y.
Kemp, Robert	Robert Kemp, Inc., Long Island City, N. Y.
Murray, Edgar S.	Consolidated Gas Co. of N. Y., New York, N. Y.
Pohle, Cortland G.	Consolidated Gas Co. of N. Y., New York, N. Y.
Zepf, William G.	Consolidated Gas Co. of N. Y., New York, N. Y.
Block, Arthur C.	Consolidated Gas Co. of N. Y., New York, N. Y.
Myers, W. H. H.	Consolidated Gas Co. of N. Y., New York, N. Y.
Rogers, Albert P.	Consolidated Gas Co. of N. Y., New York, N. Y.
Tobias, Hugh Kelso	Consolidated Gas Co. of N. Y., New York, N. Y.
Smith, Henry O.	Consolidated Gas Co. of N. Y., New York, N. Y.
Jones, Ezra Ward	Peerless Manufacturing Co., Louisville, Ky.
Fritz, Edward A.	Reliable Stove Co. Division, Cleveland, Ohio
Hagar, Frank	Westchester Lighting Co., New Rochelle, N. Y.
Kenny, Thomas J.	Westchester Lighting Co., Yonkers, N. Y.
FitzGerald, William George	Westchester Lighting Co., Tarrytown, N. Y.
McGovern, Edward	Westchester Lighting Co., Port Chester, N. Y.
Schreck, Roy	Westchester Lighting Co., Mt. Vernon, N. Y.
Pruyn, J. W.	Westchester Lighting Co., Yonkers, N. Y.
Jennings, James A.	Westchester Lighting Co., White Plains, N. Y.
Weiland, Gustav J.	Consolidated Gas Co. of N. Y., New York, N. Y.
Lambrecht, Frank L.	Consolidated Gas Co. of N. Y., New York, N. Y.
McCormick, Harry Lester	Consolidated Gas Co. of N. Y., New York, N. Y.
Coffin, Edward J.	Consolidated Gas Co. of N. Y., New York, N. Y.
Riggio, Joseph A.	Consolidated Gas Co. of N. Y., New York, N. Y.
Clark, Hale Austin	Detroit City Gas Co., Detroit, Mich.
Cadmus, Fred B.	The Koppers Company, Brooklyn, N. Y.
Swain, Henry D.	Peekskill Lighting & Railroad Co., Ossining, N. Y.
Post, Winfield	Northern Westchester Lighting Co., Ossining, N. Y.
Drittler, John Henry	Northern Westchester Lighting Co., Ossining, N. Y.
Fisher, R. E.	Pacific Gas & Electric Co., San Francisco, Calif.
Saussy, Charles Walker	Baton Rouge Electric Co., Baton Rouge, La.
Riverburg, William C.	Philadelphia Suburban Gas & Electric Co., Phoenixville, Pa.
Vieregg, E. H.	Central Power Co., Grand Island, Nebr.
Pfeiffer, R. F.	Central Power Co., Kearney, Nebr.
Borden, A. W.	Central Power Co., Hastings, Nebr.
McKearin, John J.	Haverhill Gas Light Co., Haverhill, Mass.
Borresen, Johs E.	Copenhagen Municipal Lighting Department, Copenhagen, Denmark

An Army of Co-operation

Extending association work to cover the country and the many state and sectional organizations which are affiliated with the central body, a recent survey shows that it requires 7,600 gas men to carry on important committee work in order that the industry may keep abreast of the times. This figure will surprise many who have thought that association work in the gas industry occupied the attention of a small number of men.

PERSONAL MENTION

Chas. L. Holman

CHAS. L. HOLMAN, vice-president of the American Gas Association, has resigned as president of the Laclede Gas Light Company, of St. Louis, Mo., to accept the presidency of the Georgian Manganese Corporation of New York, which was recently organized to take over the contract made by W. A. Harriman & Co. with the Soviet Government and private mine owners to operate the Russian manganese fields located in the Caucasus. Mr. Holman has been with the Laclede Company since 1903, having successively been secretary, vice-president, general manager and president. Throughout his connection with this company, Mr. Holman has been prominent in the affairs of the gas industry. In 1912 he was president of the N.C.G.A. and after its consolidation with the A.G.I. in 1918 became vice-president of the new association.

The following editorial comment is from the St. Louis *Times*:

"Charley" Holman's departure from the Laclede Gas Light Company to assume the presidency of an American corporation engaged in large operations in Russia will take out of the community a man who has been a part of all worthy civic movements here for 20 years. Mr. Holman will carry with him that priceless thing known as the esteem of his fellows."

Geo. B. Evans

GEO. B. EVANS, vice-president and general manager of the Laclede Gas Light Company, has been elected president of the company to succeed Mr. Holman. Mr. Evans has been with the Laclede Gas Light Company for twenty years, entering its service to direct construction work. He is a graduate of the University of Wisconsin in civil engineering, and has long been active in affairs of the A. G. A., especially in its technical councils, where his voice always is listened to with respect. He is a member of the Managing Committee of the Technical Section.

WALTER HERBERT FULWEILER, chemical engineer of the U. G. I. Contracting Co., and a member of the Technical Section, A. G. A., has been elected president of the American Society for Testing Materials. Mr. Fulweiler was the winner of the Beal medal given by the American Gas Institute in 1908.

CHARLES S. RUFFNER, formerly vice-president and general manager of the Adirondack Power and Light Corporation, and delegate to the A. G. A., has been named president of that company to succeed J. Ledlie Hees, who recently resigned. Mr. Ruffner will assume his new duties at once.

SAM R. DEFRESE, general manager of the Rome Municipal Gas Company, Rome, Ga., has been elected president of the company to succeed his father, S. E. DeFrese, delegate to the A. G. A. Mr. DeFrese, the elder, it is said, will probably accept one of several offers to become consulting engineer for an eastern holding company.

J. J. MCKEARIN, of the Haverhill Gas Light Company of Massachusetts, has been promoted to the post of sales manager of that company, a position formerly held by R. Allyn Haigh, who has been transferred in the same capacity to the Woonsocket Division of the Blackstone Valley Gas and Electric Company. Mr. McKearin was formerly assistant to Mr. Haigh and during the past six months has been engaged in districting the company's system for the sales organization. Both are members of the Commerical Section of the A. G. A.

JEFFERSON L. ALEXANDER, manager of the Haverhill Gas Light Company, Haverhill, Mass., has been transferred to Houston, Texas, by the Stone & Webster Company of Boston, where he will be manager of the Galveston and Houston Street Railway Company.

CARL B. WYCKOFF, for the last five years president and general manager of the Emporia (Kan.) Gas Company, has been appointed manager of the McAlester Gas & Coke Company. He will manage this property in addition to the one in Emporia.

JOSEPH D. TAYLOR, SR., has been appointed manager of the Gas Sales Department of Walker & Pratt Manufacturing Company, Boston, Mass., manufacturers of Crawford ranges.

A. E. CREVISTON, formerly Southern representative of the Oriole Division of the Standard Gas Equipment Corporation, has been appointed sales manager of that division. He succeeds Joseph D. Taylor, who recently resigned.

Affiliated Association Activities

Michigan Gas Association

B. G. Campbell

The 33rd Annual Convention of this association held on Mackinac Island, Mich., June 25, 26 and 27, proved to be delightful in every respect. President Chester Grey presided at the business sessions held during the mornings of the three days. The papers were fine ones and brought out discussions which added much to the subjects. The following papers were read: "The Future of Gas in Industry", by H. E. Broughton and H. C. Haroldson; "House Heating Experiences", by D. H. Frazer, Jr.; "Gas Rate Structure for Large Customers" by F. A. Newton; "Progress with Gas Ovens" by R. H. Lawlor and F. W. Seymour; "Stratification of Different Gravity Cases in a Three Million Cubic Foot Holder" by T. W. Weigele; "Tying in with the National Program of the American Gas Association" by K. R. Boyes; "Bituminous Coal as Generator Fuel" by H. S. Parker; "Experiences with Modern Gas Accounting Methods" by P. H. Sanderson; "Progress in Appliance Manufacture" by J. A. Weston; "Physical Examination of Employes" by A. G. Schroeder; and "Co-operation in the Extension and Maintenance of Underground Structures in Public Highways" by L. K. Richey. Many of the papers have been printed and copies may be secured by writing the Secretary, A. G. Schroeder, Grand Rapids Gas Light Co., Grand Rapids, Mich.

The Entertainment Committee with R. H. Lawlor provided a program which perfectly balanced the business sessions. The location of the convention was so satisfactory to all that it was voted to return to Mackinac Island for the 1926 meeting.

During the meeting E. F. Gallagher, manager of the Ionia Gas Co., Ionia, Mich., and a charter member of the Michigan Gas Association was elected to honorary membership in recognition of his many years of unfailing interest in the association work.

The officers elected for the new year are: President, B. G. Campbell, Pontiac, Mich.; vice-president, Charles H. Henderson, Washtenaw Gas Co., Ann Arbor, Mich.; and secretary-treasurer, A. G. Schroeder, Grand Rapids, Mich.

Mr. Campbell, a native of Michigan, is a graduate of Michigan State College in the class of 1907, immediately after which he started in the gas business with the Jackson Gas Co. He is now district manager of the Consumers Power Co., Pontiac, Mich.

Pacific Coast Gas Association

The 32nd Annual Convention of this association will be held from Monday, August 17, to Friday, August 21, in Portland, Oregon, with headquarters at the Multnomah Hotel. The general sessions will be held on Monday afternoon and Tuesday morning. Parallel sessions of the Technical and Commercial Sections will be held Tuesday afternoon. All day Thursday will be devoted to parallel sessions of the Technical and Accounting Sections with Friday assigned to an all-day session of the Public Relations Section. The entire day Wednesday will be given over to sight-seeing and entertainment. The banquet will be held on Friday evening.

In addition to fifty-seven fine committee reports, the following are some of the promising papers and addresses to be presented: "Premium Systems", by Donald E. Buyers; "The Future Fuel for Gas Making", by W. S. Yard; "Selling Co-operative Advertising to an Industry", by Charles Duncan; "Development of a Public Relations Spirit", by O. L. Moore; "Statistics—Their Value to the Operating Man and to the Executive", by Rudolph Jenney; "Accomplishments in Selling Gas to Industry", by J. H. Gumz; "Refractory Problems in Oil Gas Manufacture", by H. J. Knollman; "An Improved Oil Spray for Oil Gas Generators", by J. E. Kelley; "Addition of Inert Gases to Increase Plant Capacity and Thermal Efficiency of the Reforming Process", by Frederick Hough and J. R. McLaughlin; "The Extension of Pipe Life", by H. S. Christopher; "Rebuilding a Gas Holder in Service", by R. M. McCalley; "Cost Keeping on Auxiliary Units", by B. H. Parkinson; and "Public Relations to the Public", by Norwood W. Brockett.

The entertainment features provide such items as a drive over the Columbia Highway to the snowfields of Mount Hood, a boat ride on the Columbia River, dances, golf, etc.

Southwestern Public Service Association

Paul E. Nicholls, vice-president and general manager of the Galveston Gas Company, has been elected president of the Southwestern Public Service Association for the term ending at the convention, 1926, to fill out the unexpired term of W. E. Wood, who was obliged to resign on account of his transfer to be vice-president and general manager of the Virginia Power and Light Company, Richmond, Va. Mr. Nicholls is the first president of this association in many years whose interests are exclusively manufactured gas, although this association gives due attention to the needs of all branches of the utility business—gas as well as electric and street railway.

CHAIRMEN OF GENERAL COMMITTEES ORGANIZED TO DATE

Accident Prevention—C. B. Scott, Chicago, Ill.
Amendments to Constitution—Wm. J. Clark, Yonkers, N. Y.
American Engineering Standards Committee, Representative on—A. H. Hall, New York, N. Y. —(Alternate Representative) W. J. Serrill, Philadelphia, Pa.
Award of Beal Medal—H. C. Abell, New York, N. Y.
Chamber of Commerce of U. S.—J. B. Klumpp, Philadelphia, Pa.
Co-operation with Educational Institutions—W. G. Gribbel, Philadelphia, Pa.
Customer Ownership—Charles A. Munroe, Chicago, Ill.
Education of Gas Company Employees—B. J. Mullaney, Chicago, Ill.
Entertainment—Wm. J. Clark, Yonkers, N. Y.
Finance—James Lawrence, New York, N. Y.
Gas Safety Code—W. R. Addicks, New York, N. Y.
Gas Standards & Service—J. A. Perry, Philadelphia, Pa.
General Specifications—A. H. Hall, New York, N. Y.
Geographic Sections—L. R. Dutton, Jenkintown, Pa.
Managing Committee of Appliance Testing Laboratory—R. W. Gallagher, Cleveland, Ohio.
National Fire Protection Association—R. S. Doull, New York, N. Y.
Nominating—R. B. Harper, Chicago, Ill.
Rate Structure—Ewald Haase, Milwaukee, Wis.
Representation on National Joint Committee of Public Utility Associations—D. D. Barnum Boston, Mass.; H. L. Doherty, New York, N. Y.; A. P. Lathrop, New York, N. Y.; P. H. Gadsden, Philadelphia, Pa.; Charles A. Munroe, Chicago, Ill.; Wm. L. Ransom, New York, N. Y.; Alexander Forward, New York, N. Y.; H. C. Abell, New York, N. Y.; T. V. Purcell, Chicago, Ill.
Theft of Gas—H. B. Flowers, New Orleans, La.
Time and Place—R. B. Brown, Milwaukee, Wis.

Putting in a Word for Safety

By E. H. BAUER, Manager, Worcester Gas Light Co., Mass.

I HAVE found a new way of killing two birds with one stone.

The Worcester County Safety Council recently asked me to give a talk to them on the Manufacture, Distribution, and Utilization of Gas, and I supplemented this with a talk on the hazards encountered in the gas business and how the gas company tried to overcome these hazards while performing its duty to give the best service it knows how.

I used our two demonstrating models to show the manufacture of coal gas and water gas, just explaining the two of them in general, touching lightly on the distribution system, and giving some idea to the audience of the size of the industry and what it means to the country today.

After this I returned to that part of the talk which dealt with asphyxiation and tried to show that, while the monoxide constituent in gas is poison, there is no more reason for discontinuing its manufacture in order to avoid possible accidents due to carelessness on the part of employees or customers than there is for stopping the manufacture of automobiles due to accidents caused through carelessness on the part of drivers and pedestrians.

We would not want to throttle our progress by stopping the automotive industry due to the carelessness on the part of some people, neither do we want to stop progress in this country by throttling the gas industry and causing it to make an expensive gas which contains no carbon monoxide.

Here is a list of some of the things which may cause accidents:

1. Handling of large quantities of heavy and bulky material.
2. Operating machinery for unloading fuel from cars and charging it into our apparatus.
3. Burning, welding and diamond pointing necessary in distribution work or in piping at the works.

4. Bagging off and cutting into live gas mains.
5. Danger of sparks igniting gas while digging for leaks.
6. Danger of asphyxiation while working under buildings without cellars, or in tunnels, manholes or closed spaces.
7. Slipping of wrenches and breaking of fittings. (Our storeroom is cautioned to keep all pipe wrenches supplied with sharp jaws so that the pipes will not slip.)
8. Transportation hazards. (Our yearly mileage in Worcester is approximately 280,000 miles.)
9. Hazards to the public: (Street excavations, protecting the pedestrian not only from falling into the excavation, but also against stones and chips flying from the work).
10. Poor design of appliances.
11. Poor or illegal piping. (We recently had two deaths by asphyxiation caused by a landlord doing his own piping at night and allowing gas to escape into the sleeping quarters of two young ladies, who died from the effects of the gas.)
12. Prepayment meters and the stealing of gas, etc.

From the attention given to me during this talk and from the comments I received from the members of the Council, I would say, without any egotism on my part, that it was a success and the members not only learned something about the gas business, but know that we are trying to do what we can to reduce accidents in our company.

Just at this time one of our employees who was listening to my talk was "overcome" and our emergency group entered, stripped off their coats, placed the "victim" on a table and proceeded with the prone pressure method.

Thus, you see that we talked not only gas, but also safety, to the same group at the same time.

Demonstrating the Schaeffer Prone Pressure Method of Resuscitation at the Chamber of Commerce During Resuscitation Week in Rochester.

ACCOUNTING SECTION

H. C. DAVIDSON, Chairman — DeWITT CLINTON, Vice-Chairman
H. W. HARTMAN, Secretary

MANAGING COMMITTEE—1925

ARMSTRONG, J. J., Toronto, Ont., Canada. (Canadian)
BISCHOFF, W. H., Savannah, Ga.
BLANCHFIELD, JOHN L., Brooklyn, N. Y.
CARMICHAEL, E. T., Elkhart, Ind. (Indiana)
CASELL, W. H., Baltimore, Md.
CHALMERS, W. D., Baton Rouge, La. (Southwestern)
CLINTON, DEWITT, Worcester, Mass. (N. E. Assn. Gas Engrs.)
CONOVER, J. L., Newark, N. J.
DOERING, W. A., Boston, Mass.
ERLACH, PETER, Hammond, Ind.
HAASE, EWALD, Milwaukee, Wis. (Wisconsin)
HALL, H. B., East Braintree, Mass. (Gas Sales)
HALL, ISAAC S., Boston, Mass.
HEINS, J. W., Philadelphia, Pa.
JAMES, F. M., Aurora, Ill. (Illinois)
KELLER, A. R., Syracuse, N. Y.
KURTZ, ADAM, Detroit, Mich.
LAWALL, H. J., Philadelphia, Pa.
LAWRENCE, JAMES, New York, N. Y.
McKANA, G. E., Chicago, Ill.
MEYERS, W. J., New York, N. Y.
PACE, H. M., Charleston, S. C. (Southern)
PATTERSON, F. H., Rochester, N. Y.
PETTES, W. H., Newark, N. J. (New Jersey)
PLATT, C. W., Portland, Ore. (Pacific Coast)
PORTER, EDWARD, Philadelphia, Pa. (Pennsylvania)
POTTER, O. F., Newark, N. J.
PREBLANO, E. P., Yonkers, N. Y.
REESE, J. G., Baltimore, Md.
REYNOLDS, A. E., Springfield, Mo. (Missouri)
SAUER, W. A., Chicago, Ill.
SCOBELL, E. C., Rochester, N. Y. (Empire State)
SEARING, R. B., Sioux City, Iowa. (Iowa)
SHORT, A. F., Providence, R. I.
SPEAR, M. H., Flushing, L. I., N. Y.
TOSSELL, A. L., Chicago, Ill.
WASSER, O. E., Ithaca, N. Y.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Analysis of Gas Company Statistics—H. J. LAWALL, Philadelphia, Pa.
Customers Accounting Committee—J. L. CONOVER, JR., Newark, N. J.
Insurance—J. G. REESE, Baltimore, Md.
Nominating—W. A. SAUER, Chicago, Ill.
Relations with Customers—W. A. DOERING, Boston, Mass.
State Representatives—A. L. TOSSELL, Chicago, Ill.
Undistributed Structural Costs—J. I. BLANCHFIELD, Brooklyn, N. Y.
Uniform Classification of Accounts—W. J. MEYERS, New York, N. Y.

Earthquake Insurance for the Gas Company

THE subject of earthquakes is again to the fore, and with it the distribution man's favorite nightmare of an upheaval that will one day twist all his lines into coiled rattlesnakes. Coming at this time, it is interesting to learn that the New Bedford Gas and Edison Light Company of New Bedford, Mass., have taken out a blanket policy of earthquake insurance covering all property of that company, wherever located, to an amount of some $600,000. Within the past year two slight shocks have been experienced in and about New Bedford, no damage being done, however, except to a few dishes which were shaken from their shelves.

The New Bedford Company was induced to take the insurance by securing the coverage at a very low rate and before the charges were advanced. There are several stacks on the premises and the loss of either of these would be a serious handicap to service, as also would any damage to gas mains from earth tremors. The policy was written from a laudable desire to keep on the safe side.

The recent temblors in Santa Barbara and Montana have resulted in a rush for earthquake insurance not only from sections where such phenomena are not unknown, but from districts where such occurrences have never taken place, we are told by the Providence *Journal*. The Edison Electric Illuminating Company of Boston has taken out $45,000,000 earthquake insurance and underwriters throughout the great New England insurance centers are generally quoting premiums for four cents per hundred dollars.

Courtesy U. S. Geological Survey
What One Earthquake Did to the Railway Track

Offices in Los Angeles, *The Journal* continues, are being flooded by demand for coverage. The Santa Barbara disaster has not served materially to raise rates, since few of the important companies writing that class of business sustained severe losses. Property owners in New York and other large centres are considering applications for millions of dollars worth of quake and tornado protection. Several inquiries are out for coverage up to $10,000,000 on downtown buildings.

With new construction of all kinds going on in every section of the country at an unprecedented rate, the possible property damage from earthquake shocks becomes a problem of growing importance. So much is this true that, the New York *Times* tells us, one of the most important research bodies has decided to center its entire attention on this subject. This organization is none other than the Engineering-Economics Foundation, a group of eminent scientists and public men engaged in the task of preparing to meet emergencies of national concern. The Foundation, whose chief officers include men like Hollis Godfrey, General Harbord, Franklin D. Roosevelt, Admiral Sims and others, was organized as a voluntary association before the World War, initiated the Council of National Defense and served through the War on the staff of the Federal Commission of Education of the Council.

Professor Kirtley F. Mather, Professor of Geophysics at Harvard University and the Foundation's senior fellow in seismology, describes the present earthquake situation by saying:

"Northeastern United States is now in the grip of a periodical readjustment of the earth's surface. The series of earthquake shocks felt by men recently in the New York and New England territory is proof of what is going on. Eight distinct shocks of varying intensity have occurred since September 30th in this region. One of them, on the night of February 28th, caused a tremor in New York City which rocked some buildings perceptibly and even threw pictures from the walls. It was the first one felt in New York since 1914. Earthquakes, the records show, almost invariably come in a series like this—with a considerable period of quiet in between; and seismologists expect more shocks in the northeastern section before the present spasm is ended."

Dr. Mather has prepared a map of the zones of earthquake origin in the northeastern section of the United States. It shows graphically the areas from which New York or Boston, Providence or Bridgeport and other cities in the New York and New England district may look for earthquake trouble—the Connecticut and St. Lawrence Valleys, Long Island Sound and the Bay of Fundy.

Dr. Thomas A. Jagger, the Foundation's senior fellow in geophysics, shows how other sections of the country are subject to earthquake shocks. He says:

Courtesy U. S. Geological Survey
Even Property Lines Are Left in Doubt

"For various groups of years the figures for the different districts of the Central and Atlantic slope of America show from two to sixteen earthquakes a year obtained from historical lists. These go back to 1727. For different groups of years the separate Pacific Coast States show from nine to twenty-one earthquakes a year, all in the nineteenth century. About 300 centers of quaking have been located along each belt, Atlantic and Pacific. The statistics are based on a thousand earthquakes on the Atlantic side and more than 4,000 on the Pacific, but more years are covered by the Pacific statistics, as that has been a region more studied by seismologists."

When the Foundation began its researches, it found that no organized knowledge existed in the Eastern States as to what to do in an earthquake emergency—much less had buildings, gas and water mains, or subways been constructed with reference to the earthquake hazard, or streets and parks laid out with this in mind.

Nor is there any knowledge of what the risks may be in different localities. There is no earthquake terrain map of New York City, for example, showing where the soft spots in its foundation lie, the variations in the capacity of buildings to withstand shock, what streets and open spaces are safe for use in an earthquake emergency, where gas and water mains may be expected to give way, and so on.

Within the past few months Congress has authorized the United States Coast and Geodetic Survey to make a thorough study of seismology and to take over what work has been done in this direction by the Weather Bureau.

One of the objects of the Foundation is to have earthquake maps prepared for each city in the northeastern area, and to stimulate seismological research.

A preliminary brief report on the Santa Barbara shock received by the Foundation from the Foundation's Pacific Coast representative shows its fact-finding machinery in operation. The first telegram of the report is in part as follows:

"Damage extremely severe in business section, but in residential mostly confined to cracked walls and fallen chimneys. California Hotel, newest hotel there, substantially built four-story brick structure, had side wall torn completely off like ripping sole off shoe, leaving rooms exposed as on stage. Newest portion San Marcos office building demolished—a four story building, built two years ago. Similar destruction to practically 90 per cent best business section, including Arlington Hotel, best downtown hotel. In places concrete pavement broken and upthrust and cracks two to eight inches across and of considerable length. Car rails displaced and twisted, also water mains broken and sub-reservoir damaged. Telephone and telegraph service instantly shut off; gas and electricity cut out. Sewerage system damaged. Small loss of life and freedom from fire absolutely remarkable and all out of proportion to heavy property damage; cannot understand how they were so lucky. Am forwarding details by airplane mail."

Gas Man is Hero of Quake

ON the list of heroes of the near-panic which followed the first quake in Santa Barbara, F. S. Wade, vice-president and manager of the Southern Counties Gas Company, has placed the name of Henry Ketz, engineer of the Santa Barbara gas plant.

Ketz was on duty when the first quake occurred. Realizing instantly that the shake was so intense that great damage must have been done to the city and that many gas mains probably were broken, he rushed for the emergency valve which cut off the city gas supply.

Between Ketz and the emergency valve was a long room filled with dangerous machinery, made doubly dangerous for the unwary by the swaying floor and walls, but Ketz made top speed, falling twice and narrowly escaping disaster, but keeping on. He turned off the valve before the broken mains could emit enough gas to increase the fire menace which followed the quake.

Ketz received the official praise of Manager Wade and other officials of the company.

The Southern Counties Gas Company immediately sent out a force of 100 expert gas men to Santa Barbara and rushed the repair work on broken mains at top speed.

The Gas Meter "Gets" Its Audience

By C. T. HENDERSON, East Ohio Gas Company

THAT gas consumers can take a lively interest in the usually obscure and unobtrusive meter when it is brought to their attention is shown by the numbers of people who are attracted by a display of a meter prover in towns of the East Ohio Gas Company, Cleveland.

The prover was demonstrated in the lobby of the gas office at Akron, and was interesting enough to hold people's attention for several weeks. Later it was installed in the lobby of the East Ohio Building at Cleveland, and the experience with it was the same. It is still on exhibit in Cleveland, and there are few intervals during the day when it is not surrounded by observers.

Most of them ask questions, too. Part of the exhibit is a demonstration meter, with glass sides, open so that the people themselves can work it with their hands, causing the valves to open and close, a skilled attendant being always present. The educational value of the demonstration, therefore, is very great, and the amount of general information concerning gas and the gas industry which is carried away is wide.

A factor which is quite important in the success of the exhibit and demonstrations is the action which is always part of it. The prover is in operation, a man is there to explain things, and the actual going nature of the display contributes much toward attracting audiences.

The following abstract from an editorial in the Akron (Ohio) *Journal* tells something of the effect of the meter exhibit on public relations:

Gas Meter Prover Exhibit and Demonstration in Lobby of East Ohio Gas Co., Akron, O.

There is an educational advertising campaign on in Akron right now, as part of a general policy that is considerably more farsighted in its principles than any of the others mentioned.

This campaign cuts down the immediate consumption of the company's product in order that better public relations and increased public confidence may result ultimately to redound to that concern's benefit, of course.

The company in question is the East Ohio Gas Co.

For the past week a display has been on in the local offices on High St. to show how meters are tested and proved and to give the gas consumer some idea of how a meter operates.

One reason for this exhibit is to dispel many incorrect ideas about gas meters. But the really big thing that is stressed by L. B. Terry, manager of the local gas office, and his force is the ability of the consumer to save on his gas consumption if he understands the operations of his meter and keeps an eye on it.

Why should the East Ohio Gas Co., with nothing to sell but its gas, wish to cut down consumption, The answer has already been suggested: increased public confidence that will come with the realization that the company is concerned with the householder's interests—a mental attitude of infinite value to a public service corporation.

To accomplish this purpose in this particular exhibit the East Ohio Gas Co has installed in its lobby a typical proving machine used in testing meters and a set of specially prepared gas meters arranged to lay bare the operations of all inner mechanism.

PUBLICITY AND ADVERTISING SECTION

F. L. BLANCHARD, Chairman — A. W. HAWKS, Jr., Vice-Chairman

CHARLES W. PERSON, Secretary

MANAGING COMMITTEE—1925

BENNETT, J. M., Philadelphia, Pa.
BORDEN, A. W., Hastings, Neb.
BURNS, J. J., St. Louis, Mo. (Missouri)
CADWALLADER, F. D., Brookline, Mass. (Gas Sales of N. E.)
CLARK, HARLOW C., Newark, N. J.
COONEY, E. J. Lowell, Mass.
CRONE, F. W., New York, N. Y. (Empire State)
FISHER, R. E., San Francisco, Calif.
FRANK, M. H., Fond du Lac, Wis.
FRANKLIN, S. J., Millville, N. J. (New Jersey)
GARDINER, E. F., Chicago, Ill.
JARDEN, F. A., Ottawa, Ont., Canada. (Canadian)
LACEY, W. R., Milwaukee, Wis. (Wisconsin)
LIGHTBODY, JAMES, Vancouver, B. C.
LIVINGSTON, R. E., New York, N. Y.
LUCAS, JOHN PAUL, Charlotte, N. C. (Southern)
MCKINNEY, C. B., Dallas, Texas. (Southwestern)
MCMAHON, J. J., Cleveland, Ohio.
MULLANEY, B. J., Chicago, Ill. (Illinois)
MYERS, G. L., Portland, Ore.
POTTER, CLYDE H., Los Angeles, Calif.
RAY, DON, San Francisco, Calif. (Pacific Coast)
RICHARDSON, J. S. S., Philadelphia, Pa. (Pennsylvania)
SCRANTON, GEORGE H., Derby, Conn. (N. E. Gas. Engrs.)
SHUFF, J. E., Lincoln, Nebr. (Iowa)
SPRAGUE, L. D., New Albany, Ind. (Indiana)
STARR, L. K., Atlanta, Ga.
STELLE, OMAR P., Mount Clemens, Mich. (Michigan)
WATT, A. C., New York, N. Y.

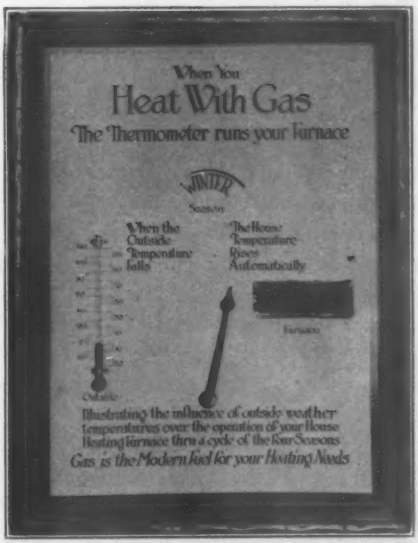
Two Ways of Advertising House Heating

HOW shall house heating be advertised? Can it be effectively done by the three principal accepted mediums, newspapers, posters and window displays? We are reproducing examples of two methods, letting the reader judge for himself.

Attention is particularly directed, however, to the mechanical device used in one of the display rooms of the Peoples Gas Light & Coke Company of Chicago. The artists in the display room studio were particularly clever in constructing a device having the attractive qualities of a number of independent movements, all so simple as to stimulate no curiosity as to how they are produced. The attention of the onlooker is not distracted, and he can hardly fail to "get the idea."

The device is on a flat board surface, with a semi-circular cut-out in the center of the upper half, just large enough to allow the names of the seasons, spring, summer, autumn, winter, to appear, one at a time.

The lower left-hand side is a glass thermometer tube, containing red fluid. Lower half, center, has a pointer or clock hand, and the lower-half right has a window cut-out with a movable screen. This cut-out has the word "Furnace" underneath it, and when the screen is


When You
Heat With Gas
The Thermometer runs your Furnace
WINTER
Season
When the Outside Temperature falls
The House Temperature Rises Automatically
Furnace
Outside
Illustrating the influence of outside weather temperatures over the operation of your House Heating furnace thru a cycle of the four Seasons
Gas is the Modern fuel for your Heating Needs

Actions Get the Decision over Words

Gas Heating Adds a Floor to Your House
Consolidated Gas Company of New York
Once a Grimy Cellar Now a Children's Playroom
Consolidated Gas Company of New York

Two of a Series of Ads Run in New York Papers

raised, gas burners in operation are disclosed.

When the word "Summer" appears in the opening, the red fluid in the thermometer stands high in the tube. "Summer" gives place to "Autumn." The thermometer gets lower in the tube, and the screen before the gas burner begins to rise, and show some activity behind it. When "Winter Comes" the thermometer stands at its lowest; the screen is entirely withdrawn and the gas burners shown in full operation. And from there on the cycle is repeated. The clock hand pointer merely serves to indicate the two main facts; when the thermometer is high the furnace is off, when it is at its lowest the furnace is in full blast,—in the interim, as the mercury goes down, the gas goes on.

It is one way, and a very good one, of showing the automatic features of gas for house heat.

These Are the "Seven Per Cent and Safety" Twins of the New York State Gas & Electric Corporation of Ithaca, N. Y. They Practice and Preach at the Same Time.

"Doing business without advertising is a good deal like trying to borrow a flag on the Fourth of July."

MANUFACTURERS SECTION

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C. W. BERGHORN, Secretary

MANAGING COMMITTEE—1925

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BRUCE, HOWARD, Baltimore, Md.
DERWENT, W. E., Rockford, Ill. (Wisconsin)
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HOLLINGER, A. L., Chicago, Ill. (Indiana)
JEFFERSON, W. H., New York, N. Y.
JOHNSON, H. J., New York, N. Y.
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MUELLER, R., Decatur, Ill.
NORTON, A. E., Boston, Mass., (N. E. Gas Engr.)
OSTERMAN, P. C., Elizabeth, N. J.
RAMSBERG, C. J., Pittsburgh, Pa.
ROPER, GEO. D., Rockford, Ill. (Illinois and Iowa)
SKIDENGLANE, C. H., Dallas, Texas. (Southwestern)
SEAVER, KENNETH, Pittsburgh, Pa.
STITES, TOWNSEND, Gloucester, N. J.
STOCKSTROM, A., St. Louis, Mo. (Missouri)
WELLS, F. K., Boston, Mass. (Gas Sales of N. E.)
WESTON, J. A., Detroit, Mich. (Michigan)
WHITELAW, H. L., New York, N. Y.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

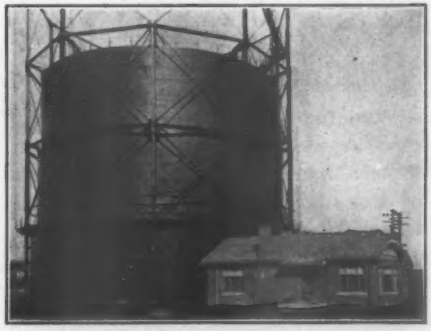
Exhibition—WENDELL L. SMITH, Battle Creek, Mich.
Nominating—GEO. W. PARKER, St. Louis, Mo.
Laboratory Equipment—DONALD MCDONALD, New York, N. Y.
Division of Accessories Manufacturers—R. MUELLER, Decatur, Ill.
Division of Apparatus & Works Manufacturers—JOHN LOWE, New York, N. Y.
Division of Gas Range Manufacturers—CHARLES T. AARON, Newark, N. J.
Division of Heating Appliance Manufacturers—H. L. WHITELAW, New York, N. Y.
Division of Industrial Appliance Manufacturers—P. C. OSTERMAN, Elizabeth, N. J.
Division of Lighting Appliance Manufacturers—TOWNSEND STITES, Gloucester, N. J.
Division of Meter Manufacturers—W. H. JEFFERSON, New York, N. Y.
Division of Office Labor Saving Devices—H. J. JOHNSON, New York, N. Y.
Division of Supply Manufacturers—KENNETH SEAVER, Pittsburgh, Pa.
Division of Water Heater Manufacturers—P. H. HAMILTON, Cleveland, O.

"Life Extension" for the Storage Holder

By WALLACE L. THACKREY, Public Service Company of Colorado

A VERY serious difficulty encountered in Denver by the Public Service Company of Colorado was the spotting and "rusting" of the paint on the holders. After a few months' operation the paint became a rusty color. At first this was supposed to be largely due to chemical action between the gas-saturated water and the paint, but later it was found that, while some chemical action undoubtedly takes place, most of the discoloration is due to the deposition of minute rust and dust particles in the little recesses and rough places in the paint.

Two remedies have been tried with seeming success. First, the holder is painted inside and outside with a high grade of elastic paint, taking care to leave absolutely no metal accessible for oxidation. This reduces to a minimum the accumulation of rust in the water. Second, after receiving the final coat of green paint, the lifts are coated with a lacquer or binder, which is colorless and fills in all uneven places of paint, leaving a smooth, glossy surface to which the exist-



District "Service Reserve Station," Denver, Colo.

ing rust particles in the water do not adhere.

As stated above, this has been done with seeming success. Both methods are still in process of experimentation and neither has been proven.

Several questions present themselves:

1. How long will the water stay free from rust?
2. Will it warrant the expenditure necessary to drain the holder tank and repaint inside?
3. How long will the lacquer remain glossy and free from rust?
4. How often will the holder have to be repainted?
5. What difficulty will be encountered in painting over the lacquer?
6. Will it have to be removed?
7. Will the increased life of the paint, due to the application of the lacquer, offset the increased cost?

Present indications are that both methods are going to prove highly successful, but the experiment is only six months old and time alone can tell.

Welded Steel Fire Doors

AFTER several years of development, all-welded steel construction, practically entirely replacing riveted steel and cast iron construction, has been included in U. G. I. standard specifications.

In this connection C. S. Chrisman of the U. G. I. Research Staff has designed a steel fire door which in practice has shown great improvement over the old type heavy cast iron door in point of service and at the same time has materially reduced the construction cost.

With the cast iron type door, it was necessary to have a pattern for each of the various sizes and to carry a number of each size of door in stock. This likewise applied to manholes, branches, etc. These patterns and large stocks tied up considerable capital. The welded steel attachments not only obviate the necessity for patterns but greatly reduce the amount of stock necessary to be carried and at the same time make possible a neater, stronger job at an appreciably lower cost.

Open and Closed Views of U. G. I. Standard Welded Steel Fire Door of Chrisman Design. Old Cast Iron Type Partially Shown Adjoining.

BOOTH ALLOTMENTS FOR EXHIBIT.

IN THE LIST OF EXHIBITORS published in the July issue of the MONTHLY, the Bristol Company of Waterbury, Conn., were located in booth 549. This allotment has now been changed to booth 455.

Since the publication of that list the following additional exhibitors have been allotted space:

Cleveland Gas Burner & Appliance Co., The, Cleveland, O. 451
General Motors Truck Co., Pontiac, Mich. 465
Howes Co., The S. M., Boston, Mass. 462
Parsons Company, The, Newton, Ia. 549
Public Service Production Co., Newark, N. J. .....466 to 470
Semet-Solvay Co., Syracuse, N. Y. 461

The space actually reserved to date represents 96 per cent of the total space available. In addition negotiations are pending for the reservation of additional booths, and it is expected that within a very short time all space will have been allotted. Those manufacturers who have not yet applied for space are earnestly urged to do so without delay.

THE MANGANESE Steel Forge Company, Philadelphia, Pa., which had been allotted to Booth 512 in the above mentioned list, will not be able to exhibit this year.

THE CUTLER-HAMMER MANUFACTURING CO. has purchased the business and patents of Payne Dean, Ltd., and will continue the development, manufacture and marketing of that company's products.

INDUSTRIAL GAS SECTION

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C. W. BERGHORN, Secretary

MANAGING COMMITTEE—1925

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BROUGHTON, H. E., Jackson, Mich. (Michigan)
CLARK, H. H., Chicago, Ill. (Illinois)
DE CORIOLIS, E. G., Boston, Mass.
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GUMS, J. H., San Francisco, Calif.
HARDING, D. J., York, Pa. (Pennsylvania)
HOBBY, H. M., New York, N. Y.
HOPBURN, W. M., New York, N. Y.
HILTON, C. A., Pawtucket, R. I. (Gas Sales of N. E.)
HOLMAN, H. B., St. Louis, Mo. (Missouri)
HORN, R. J., Texarkana, Tex. (Southwestern)
KRAUSSE, C. C., Baltimore, Md.
LEINROTH, J. P., Newark, N. J.
MITTENET, F. X., Hammond, Ind. (Indiana)
MOREHEAD, JR., I. H., Atlanta, Ga. (Southern)
MUEHLBERG, C. E., Denver, Col.
PETERSON, C. G., Providence, R. I.
QUINN, J. F., Brooklyn, N. Y.
QUINN, J. J., Quincy, Mass. (N. E. Gas Engrs.)
RAMSAY, R. E., Philadelphia, Pa.
SCHUETZ, A. A., Milwaukee, Wis. (Wisconsin)
SELLMAN, N. T., New York, N. Y.
SLIMPIN, C. D., Montreal, Canada. (Canadian)
SMITH, H. H., Boston, Mass.
STAHL, C. R., Davenport, Iowa. (Iowa)
STEPHANY, E. J., Pittsburgh, Pa.
THOMPSON, W. D., St. Louis, Mo.
WATSON, H. E. G., Toronto, Ont., Canada.
WHITWELL, G. E., Tacoma, Wash. (Pacific Coast)
YOUNG, R. R., Newark, N. J. (New Jersey)

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Advertising—F. F. CAULEY, Chicago, Ill.
Contact with Committee on Cooperation with Educational Institutions—J. J. QUINN, Quincy, Mass.
Education of Industrial Salesmen—J. P. LEINROTH, Newark, N. J.
Nominating—H. H. CLARK, Chicago, Ill.
Policy—F. F. CAULEY, Chicago, Ill.
Progress—C. C. Krausse, Baltimore, Md.
Publicity—H. O. ANDREW, New York, N. Y.
Rates—H. O. LOEBELL, New York, N. Y.
Research—J. B. ALLINGTON, Rochester, N. Y.
Survey—R. E. RAMSAY, Philadelphia, Pa.

A Training Course for Industrial Gas Men

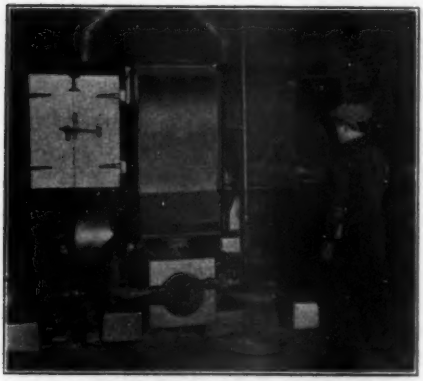
AN opportunity for industrial gas men to obtain a better understanding of the fundamentals involved in gas utilization as well as actual shop experience is now available without charge.

The Industrial Gas Section of the American Gas Association, appreciating the need for such a training course, has arranged for a two weeks' course beginning September 21 to be held in New York City.

Such subjects as piping design and layout, furnace technology, advantages and limitations of various types of furnaces, elements of design, selection of a fuel, burner design and combustion systems, fuel calculations, theory of combustion, heat losses, effect of excess air and unburned CO, recuperation, temperature control, furnace auxiliaries, refractories, blowers, competitive fuel costs, low temperature oven applications, heat treatment of steel, solution heating, gas-fired steam boilers, non-ferrous metals, plant surveys, salesmanship, etc., will be included in those offered. This wide range of subjects presented by outstanding men in the field, supplemented by shop demonstrations and inspection trips, will make this course of tremendous value to all men interested in the industrial gas utilization field.

J. P. Leinroth, of the Public Service Electric and Gas Company, Newark, New Jersey, as chairman of the Committee on Education of Industrial Gas Salesmen, has charge of this work. Write him today and let him know how many men from your company will take advantage of this opportunity.

Putting the "Spring" In the Spring



Machine Making Bed Springs

ONCE again we find gas an indispensable part of the story of the manufacture of a great necessity.

Metal products manufacturers making hundreds of thousands of various kinds of springs burn nearly one and a half billion cubic feet of gas annually. Railroad equipment manufacturers also make tons of springs. They burn three-quarters of a billion cubic feet of gas each year. Automobile makers in Chicago require fifty-five million cubic feet of gas every year. They make springs of every nature imaginable.

Probably the most common spring is of the ordinary coiled variety. A piece of straight soft wire is wound around a shaft or rod. The rod acts as sort of a form or guide for the shaping of the coil. After being wound the coils are removed from the shaft and are ready to be forged and ground.

Springs requiring special ends or hooks, after leaving the coiling machine, are heated in gas-fired forges, and then the desired end or hook is forged in the power hammer. Certain other varieties of coil-springs of necessity must terminate in an absolutely smooth and flat circular end. To accomplish this they are carefully placed between two carborundum disc grinders in such a way that both ends are ground at the same time. They leave the grinder at exactly the specified length. Valve springs in an automobile are made in this manner.

Coils of soft wire, of course, possess no elasticity. If squeezed or pulled out they retain their new position and fail to return to their original shape. Therefore, these coils of soft steel wire must be slowly and evenly heated in gas-fired furnaces to a temperature around about 1,500° F. and then rapidly cooled in ice-water, salt-water, oil or air. This procedure will cause them to become extremely hard. The hardness depends upon the rapidity of cooling. The quicker they cool, the harder they will be.

Gas-Fired Japanning Oven

At this point the heat-treating process is only half completed. They are, at this stage, too brittle. Their hardness must be "tempered."

Springs to be japanned are dipped in the desired color of japan and then either placed in wire baskets or hung in large gas-fired japanning ovens. The ovens cause the japan coating to be thoroughly baked on to the spring, forming a surface closely resembling enamel.

COMMERCIAL SECTION

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BURKE, E. J., Indianapolis, Ind. (Indiana)
BURNS, J. J., St. Louis, Mo.
CANNIFF, R. J., Poughkeepsie, N. Y.
CAPEN, FRANK, Boston, Mass. (Gas Sales of N. E.)
CLARK, J. C. D., Boston, Mass.
CLAY, NOBLE L., Winston-Salem, N. C.
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CORL, WILEY F., St. Louis, Mo. (Missouri)
CRANKSHAW, J. WARD, Allentown, Pa. (Pennsylvania)
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GARTON, LUTHER, Birmingham, Ala. (Southern)
GOULD, WM., Boston, Mass.
GRADY, STANLEY, Philadelphia, Pa.
HAYES, D. W., Detroit, Mich. (Michigan)
HUMM, A. W., New York, N. Y.
JOHNSON, W. B., Toronto, Ont., Canada. (Canadian)
JONES, JACOB B., Bridgeton, N. J., (New Jersey)
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KENNEDY, THOS. F., New York, N. Y.
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KLOPF, G. C., Chicago, Ill. (Illinois)
LITTLE, STANLEY E., Lorain, Ohio.
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MARTIN, E. H., Des Moines, Iowa. (Iowa)
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SMITH, DORSEY R., Baltimore, Md.
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VALENTINE, H. D., Chicago, Ill.
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WHITWELL, G. E., Tacoma, Wash. (Pacific Coast)
WISKE, P. B., Brooklyn, N. Y.

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

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Gas Refrigeration—H. D. VALENTINE, Chicago, Ill.
Home Service—MISS ADA BESSIE SWANN, Newark, N.J.
Sales Stimulation—R. J. CANNIFF, Poughkeepsie, N. Y.

Selling Your Big Ideas to "The Chief"

Arthur E. Childs

IN practically any business concern there is frequently heard the complaint of department heads that they are unable "to put their ideas over with the boss." And when some particularly pet plan has been vetoed by the chief executive, the father of the idea is often tempted to label "the boss" a "hard-boiled conservative."

An illuminating discussion of this phase of gas company management from the viewpoint of the chief executive is offered in the following paragraphs taken from an address by Arthur E. Childs, president of the Massachusetts Lighting Companies, at the New England Sales Conference of the A. G. A:

"Some of you, perhaps, have many times been disappointed and discouraged not only in failing to sell your appliances, but also to convince those in authority of the advisability of certain activities you advocate and desire to carry on in your sales department. In these cases you will agree with me that something is wrong. Provided your appliances are mechanically good and the activities suggested by you are sound, I am inclined to feel that the blame rests with *you* for your failure to win the co-operation of those in authority by reason of your lack of forcefulness and perseverance.

"Each executive officer has his own individual way of handling his men, and as your idea may be first-class and helpful and a business getter, you should not let your failure lessen your enthusiasm or change your belief in the subject.

"I think, sometimes, we feel that the man who presents a constructive idea to us, and

because it is not immediately adopted and is therefore promptly discouraged, is really not thoroughly convinced about it himself. Therefore I would recommend to you, when you have a constructive sales suggestion to make, be sure of two things:—first, that you fully believe in it, and second, that it would be a good thing to try out. Do not be easily discouraged, and yet, after your suggestions have been given patient hearing and serious consideration, be not too persistent.

"With the same care and thought that you study your prospective customer, so is it necessary to study your executive, and when you have found the way in which he likes things to be done, do them in that way.

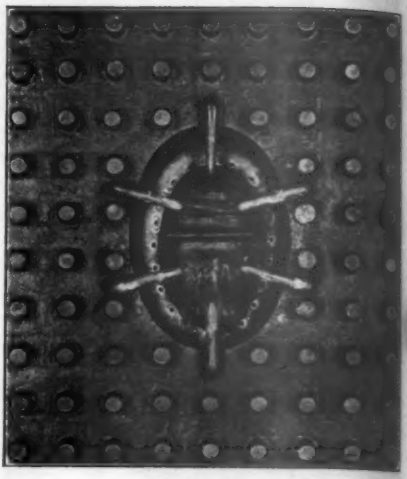
"Sales results come from a man's mind. Brain work augmented with foot work is a combination that brings in the best sales results. It has been said and ably so, Plan your work and work your plan. I would like to add to this thought by saying, Plan your work and work yourself, to the limit of that which is best in you. Do this, and the commercial future of our gas industry will be all that we hope for."

Certainly, from his breadth of vision, Mr. Childs has given a better conception of part of the commercial manager's job which has all too seldom been realized.

Fifty Years of Gas Ranges

By KATE BREW VAUGHN

THE progress which gas appliances have made in the last ten or twenty years was brought out recently by looking through a rare old book printed in 1870 by Marie Jenny Sugg for English-speaking people of London, Paris and Melbourne on the "Art of Cooking by Gas." In spite of the queer expressions all through the text and the antique illustrations of "up-to-date" gas equipment, it is evident that they realized, even as we do today, the importance of really understanding the gas stove and applying gas in the proper way. The thought expressed in the following paragraph was



"Birds-Eye View" of One of the First Gas Ranges

not only true at that time but can be applied to the present-day users of gas.

"The advantages of gas properly applied to the work of the kitchen are not known to the general public as they deserve to be. Many people suffer from dyspepsia in consequence of the defective way in which their food, especially their meat, is prepared. Meat comes to the table under the name of roast meat which has never been roasted at all, but has been put into a closed oven with little or no ventilation and there left to bake until it has acquired a dull gray brown color—so much for appearance; and a half-boiled, half-burned flavor—so much for taste."

The old book is quite charming with its description of various gas appliances, such as telling of a certain "kitchener" which was capable of carrying out a most elaborate culinary process with two roasters with water motors attached, a hot plate with large double griller, a plate warmer and small additional ovens.

All this is a far cry from that of the up-to-date gas stove of today, but at that time they were striving to teach the women the difference between wood and coal, which was uncontrollable to a great extent, and gas which was controllable, and today we are trying to teach the woman the value of the stove with an oven control over that of one without.

TECHNICAL SECTION

R. C. CORNISH, Chairman — J. P. HAFTENKAMP, Vice-Chairman
H. W. HARTMAN, Secretary

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BOECKJORD, W. C., New York, N. Y.
BUNTER, W. A., St. Louis, Mo.
BUNTOLETTE, N. B., Bristol, Pa. (Pennsylvania)
BROWN, J. A., Jackson, Mich. (Michigan)
BUCKMINSTER, R., Pawtucket, R. I. (Gas Sales)
BUEHRER, R. H., New York, N. Y.
CARTER, JR., R. A., New York, N. Y.
COOK, JR., H. R., Baltimore, Md.
COOPER, H. C., Pittsburgh, Pa.
EVANS, GEO. B., St. Louis, Mo.
FEURER, H. C., Sedalia, Missouri. (Missouri)
FIELDNER, A. C., Pittsburgh, Pa.
FREEMAN, F. C., Providence, R. I. (N. E. Gas Engrs.)
HOY, C. W., Glassboro, N. J. (New Jersey)
HUMPHREYS, J. J., Montreal, Quebec, Can. (Canadian)
INGWALL, F. F., Binghamton, N. Y. (Empire State)
KELLY, T. J., Ft. Wayne, Ind. (Indiana)
KIRCH, L. A., Chicago, Ill.
LEVAN, D. H., Savannah, Ga. (Southern)
LYONS, B. F., Beloit, Wis. (Wisconsin)
MORRIS, W. R., Jersey City, N. J.
MURPHY, F. D., Houston, Texas. (Southwestern)
PERRY, J. A., Philadelphia, Pa.
PORTER, R. G., Chester, Pa.
SEYMOUR, F. W., Battle Creek, Mich.
SNYDER, A. I., Detroit, Mich.
STRENG, L. S., Louisville, Ky.
VITTINGHOFF, H., Boston, Mass.
WEBER, F. C., New York, N. Y.
WILLIAMS, C. T., Sioux City, Iowa. (Iowa)
WILLIEN, L. J., Boston, Mass.
YARD, W. S., San Francisco, Calif. (Pacific Coast)

CHAIRMEN OF SECTIONAL COMMITTEES ORGANIZED TO DATE

Carbonization—A. M. BEEBEE, Rochester, N. Y.
Cast Iron Pipe Standards—WALTON FORSTALL, Philadelphia, Pa.
Condensing and Scrubbing Committee—D. W. FLOWERS, St. Paul, Minn.
Chemical Committee—A. F. KUNSBERGER, Philadelphia, Pa.
Distribution—H. E. BATES, Chicago, Ill.
Measurement of Large Volumes of Gas—M. E. BENESH, Chicago, Ill.
Nominating—L. J. WILLIEN, Boston, Mass.
Revision of Catechism—W. J. SERRILL, Philadelphia, Pa.
Water Gas—J. H. WARNICK, Elrama, Pa.

What the Conferees Thought of the Distribution Conference

THE recent Distribution Conference in Detroit represented a recognition of the demands of distribution engineers for more time to consider and discuss the problems in their field. It was largely an experiment to determine whether four complete sessions aside from the Annual Convention devoted entirely to the discussion of distribution problems would be of constructive assistance to the distribution men.

For this reason the delegates to the conference were requested to submit their comments. Criticisms and extracts from such comments received at Headquarters are reprinted herewith as follows:

All of the opinions which I heard expressed confirmed my own opinion that these conferences were very valuable. The conferences held at Detroit accomplished quite a little, especially due to the fact that the members attending realized that all of the time of both days was to be given entirely up to business and not to social activities, and the methods used in the handling of the conference I think had a very decided effect on its success.—John M. Lee, Construction Engineer, Public Service Company of Northern Illinois.

It is impossible to estimate the money value of such a conference that was held in Detroit on June 11 and 12, 1925. The expression or reaction and comments on the conference from a number of the men from our organization who had the privilege of attending the meetings have been many. In each of them the individual has definitely stated that he personally has gained a great deal by having had the privilege of attending the meetings. The resultant value to the company which has been able to have men in attendance at such meetings cannot be questioned. If it is not out of place to suggest, a similar mid-year conference should prove of equal value in the Manufacturing Division of the work of the

Technical Section.—A. I. Snyder, Engineer, Detroit City Gas Company.

Since returning from the Distribution Conference at Detroit, I have been talking with several distribution men in New England and find that they are all of the opinion that an annual conference of this kind is needed. They all think that this work should be continued in the form of a conference primarily for distribution men stating that it is of more value than the annual Convention for men particularly interested in distribution work.—A. C. Frey, Engineer of Manufacturing, Worcester Gas Light Company.

The Detroit Meeting, June 11th, and 12th, was a great success, and I want to thank you now, as I did not have an opportunity to do so at the close of the meeting, on the way you carried out the plans of your committee. I wish we could have a separate report of the proceedings of the Detroit Meeting, but, no doubt, it will be considered too expensive to have them printed.—D. F. Burritt, Middle West Utilities Company.

I wish to convey my sincere regrets at not being present at the Distribution Conference at Detroit. Some important matters turned up that required my attention and prevented me from getting away. I was very keen on attending and would appreciate if you would send me the proceedings of the conference.—Bernard B. Livingston, Engineer, Gas Department, Gary Heat Light & Water Company.

I made notes during the discussions of matters which particularly interested me together with the names of those participating in the discussions. Upon my return home, I wrote letters to some of these men and asked them for more detailed information. I mention this point because of the fact that one not only profits from what is actually said at the meetings, but from correspondence with men in the industry whose acquaintance has been made at the conference. I believe I can safely say that I gained enough information from the meetings and from the contact with the other men in the industry that it would be easy to compare it favorably with the time and money expended in order to attend.—J. E. Newton, Superintendent of Distribution, Madison Gas & Electric Company.

I wish to say right here that I feel that the meeting as held by the Distribution Committee during the past week at Detroit was highly satisfactory from every standpoint, and I also feel that this spring meeting should by all means be continued in future years. I know that it was particularly advantageous to myself and it must have been the same to the other delegates. I wish to say further that I have no criticism whatever to offer in the way the meeting was conducted and its general procedure.—P. E. Crosier, General Superintendent, Citizens Gas Company of Indianapolis.

I wish to express to you my appreciation of the information obtained and of the special value to me of attending the Distribution Conference which you just held in Detroit. I feel that I obtained a great deal of valuable information at this conference and everyone with whom I talked at the Conference agreed that they gained information which will result in setting better standards in distribution work and undoubtedly enable them to make a saving in the investment required by their company in distribution work. I feel that a conference of this size is of more value and brings out a more frank and intimate discussion of the subject than is obtained in the larger meeting in the Fall. On the other hand, these distribution meetings are big enough to have representatives from all parts of the country and attract talent enough so the discussions are valuable to everyone. If I can be of any assistance by serving on any of the sub-committees of the Distribution Section, please do not hesitate to call upon me.—W. D. Stewart, Coal Products Manufacturing Company.

The writer and four other natural gas men attended the Distribution Conference at Detroit, and all felt amply repaid for the time taken to attend this most excellent conference. We expect to proceed, immediately, in the establishing of a Distribution Committee for the Natural Gas Association, and we would be materially assisted if we could get copies of the recent records of your Distribution Committee, especially copies of the records used at the Detroit Conference.—J. H. Maxon, General Manager, Central Indiana Gas Company.

I think the Distribution Committee is to be congratulated for conducting such a successful conference. Personally, I feel I have gotten a great deal of valuable information, and while I hesitated attending on account of the distance, I am more than pleased now that I took the time to attend the meeting.—R. S. Carter, Superintendent, Malden & Melrose Gas Light Company.

I do not see how a conference could have been better attended, or the meetings any more generally participated in, or a program of much more interest provided, than in the case of this conference in Detroit. I should say that it was a huge success.—Robert G. Griswold, Henry L. Doherty & Company.

There is no doubt in my mind about these meetings being extremely valuable. Not only to the A. G. A. but to gas companies and to the individual man. The distribution man gets a change of scenery, a mental rest, which does him good and at the same time gets thoroughly acquainted with other gas men. This to our industry is probably the most valu-

able result of distribution meetings. The valuable result, of course, is reflected back to his company and ultimately to the A. G. A. itself. The amount of money spent on the meeting can be forgotten, I'd say, as it is always paid back in service by those attending. The whole thing is commercially a profit if boiled down to dollars and cents. But the value of acquaintance with other gas men is the chief value of meetings as I see it. The experiences and profit of learning are the result of this acquaintance.—E. S. Umstead, Providence Gas Company.

I think it probable that more work could be accomplished with a smaller number, but inasmuch as so little time is provided at the annual meeting for the discussion of distribution subjects, a meeting such as this was provides a much better opportunity for all distribution men who can attend to get the benefit of the discussion of distribution subjects.—F. A. Lydecker, Assistant General Superintendent of Distribution, Gas Department, Public Service Electric & Gas Company.

The Distribution Meeting in Detroit was highly beneficial. I believe that more good was accomplished than at the regular yearly convention. The only criticism heard was insufficient time to cover so many subjects.—W. J. Bowers, Superintendent, Gas Department, Northern Indiana Gas & Electric Company.

I think that meetings such as these, of men interested primarily in one subject, result in greater progress in their subject for the amount of time spent at the conference than meetings such as the Technical Section at Atlantic City, where attempt is made to cover all the phases of gas engineering.—Walton Forstall, Engineer of Distribution, The United Gas Improvement Company.

THE FOURTEENTH ANNUAL CONFERENCE and General Meeting of the British Commercial Gas Association will be held at Plymouth, England, on Monday, Tuesday and Wednesday, October 19-21. A list of the leading hotels in Plymouth and any other information will be sent on request to the secretary of the B. C. G. A.

Wembley Again Shows Gas

WITH the British gas industry contributing three shillings per million cubic feet for expenses, the Gas Exhibit at the Empire Exposition at Wembley has been reopened with many additional features.

This year the outside of the strand is devoted to industrial exhibits, which include a 10-foot wafer baking oven, a great vertical gas engine over 9 feet high, the chassis of a lorry and the various gas-heated furnaces

The Spirit of Coal Rises Again on Wembley

used during its construction, etc.; while down the side aisle are exhibits illustrating the use of gas in the pottery, tool-making, boot-making, ship building, feather, artificial flower, dental, hat-making, and other trades.

In the first of the large halls, the services of gas to the homes of the overseas dominions are illustrated by tableaux typical of home life in Canada, Australia, South Africa, India and New Zealand.

In the second hall, a working laundry and a gas-heated greenhouse, a garage, a chauffeur's quarters, a model domestic kitchen and an hotel kitchen are shown; while the results of burning coal in an open grate, polluting the atmosphere, wasting valuable chemical substances and destroying the freshness and purity of interior decorations with smoke and dirt, are dramatically contrasted with the scientific use of coal in the manufacture of gas and the utilization of gas for heating and cooking.

Change in Present Pipe Standards Suggested

To Company Members:

Mr. von Maur of Toronto has requested the following changes in our present pipe standards:

1. In Bell No. 1, increase distance from face of bell to edge of lead groove, in sizes 16" and larger.
2. In Bell No. 1, increase depth of bell in 16" and 20" pipe from 4½" to 5".
3. In Bell No. 1, for special castings 12" and larger, make distance between face of bell and edge of lead groove 1", and increase depth of bell by ½".
4. Use for drilling 12" flange, 12⅝" bolts.

The above suggestions were discussed to some extent at the Distribution Conference in Detroit, June 11th and 12th. Those who were present and all other distribution men are asked to notify the undersigned whether or not they agree with Mr. von Maur.

WALTON FORSTALL, *Chairman,*
Committee on Cast Iron Pipe Standards.

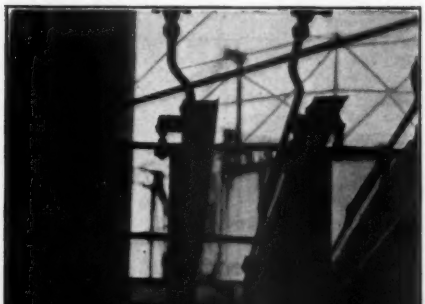
Protecting Cooling Coils

By R. BUCKMINSTER
Pawtucket Gas Co., R. I.

Making up Head Plugs for Relief

PLANT men will be interested in the following description of a method used by The Pawtucket Gas Company to prevent the headers on washer cooler coils from breaking due to the formation of ice inside the headers during severe winter weather.

The 2" plugs in the steel headers of the coils are replaced with bushings which have the inside opening blocked with lead extending about 1-2" thick, and caulked around the circumference of the thread at the front surface to make the lead plug tight against the water pressure on the inside. In the event of the circulating water becoming frozen, the lead plugs will act as a relief as the ice expands and will be forced out of position, thereby preventing the headers from becoming ruptured.



To Prevent the Headers from Breaking

REPAIRING HOLDERS IN SERVICE

THE DIFFICULT PROBLEM of increasing the capacity of a gasholder while still keeping it available for immediate service has been successfully solved at Weymouth, where a third lift has recently been added to a large gasholder without removing the gas, and under conditions that permitted the holder to be at call for use upon the district at any time during the progress of the extensions, says the English *Gas Journal*. The gasholder is a guide-framed one in a steel tank 100 ft. diameter; and the scheme by which the capacity was increased by 50 per cent while still keeping it in commission was devised by the company's engineer, Mr. J. T. Joyce, in collaboration with Messrs. Samuel Cutler & Sons, Ltd., who carried out the contract.

The guide-framing was first strengthened and heightened to the extent of the travel of the extended gasholder, and then the new lift was built around the existing second one (while still inflated with gas), from which it was temporarily suspended. The two-lift holder was therefore free to function in the ordinary way, but carried as a passenger the new lift nested round its circumference, first in skeleton form and finally in fully-sheeted condition. Considerable ingenuity was necessary in substituting below water level new cup carriages for the old displaced bottom rollers; but this and many other obviously difficult details were successfully negotiated without the least hitch, and the entire extension was completed in less than contract time.

AT THE GASWORKS in Denmark a holder of 210,000 cu. ft. capacity, thirty years old, had got into bad condition, the *Gas World* tells us. One of the lines of rivets had become so rusty that it was impossible to effect further repairs. They therefore tried metallization, and the whole operation was very rapidly completed, with thoroughly satisfactory results, without the holder being put out of action at all. The sheeting was scraped with a sand-blast. The holes made in the sheeting by the sand blast were immediately plugged with wooden plugs ½ in. thick. These plugs were then levelled down and covered with a thin layer of metal by a compressed-air-and-oxygen apparatus, the metal used being zinc wire and tin wire. The thin layer of metal was about 0.002 in. thick, and on it was applied a coating of tin from 0.08 to 0.12 in. thick at the weak places and from 0.16 to 0.20 in. over the wooden plugs. All now goes well.

What is done today in a spirit of adventure is done next year as a matter of habit.

Associations Affiliated with A. G. A.

Canadian Gas Association
Date of Affiliation—Mar. 25, 1919.
Pres.—E. R. Hamilton, Nova Scotia Tramways & Power Co., Halifax, N. S.
Sec.-Tr.—G. W. Allen, 7 Astley Avenue, Toronto.
Conv., 1926.

Empire State Gas and Electric Association
Date of Affiliation—Nov. 21, 1919.
Pres.—M. S. Sloan, Brooklyn Edison Co., Brooklyn, N. Y.
Chairman Gas Section—C. C. Atwood, The Brooklyn Union Gas Co., Brooklyn, N. Y.
Sec.—C. H. B. Chapin, Grand Central Terminal, New York, N. Y.
Annual Meeting, Lake Placid, N. Y., Oct. 1 and 2, 1925.

Illinois Gas Association
Date of Affiliation—Mar. 19, 1919.
Pres.—R. E. Chew, Union Gas & Electric Co., Bloomington, Ill.
Sec.-Tr.—R. V. Prather, 305 Illinois Mine Workers Bldg., Springfield, Ill.
Conv., Chicago, Ill., 1926.

Indiana Gas Association
Date of Affiliation—April 24, 1919.
Pres.—G. M. Johnson, Northern Indiana Gas & Electric Co., South Bend, Ind.
Sec.-Tr.—E. J. Burke, Room 1314, Peoples Gas Bldg.,
Conv., West Baden Springs, Ind., Sept. 21 and 22, 1925.

Iowa District Gas Association
Date of Affiliation—May 21, 1919.
Pres.—C. M. Benedict, Des Moines Gas Co., Des Moines, Iowa.
Sec.-Tr.—H. R. Sterrett, 551 Seventh St., Des Moines, Ia.
Conv., 1926.

Michigan Gas Association
Date of Affiliation—Sept. 18, 1919.
Pres.—B. G. Campbell, Consumers Power Co., Pontiac, Mich.
Sec.-Tr.—A. G. Schroeder, Grand Rapids Gas Light Co., Grand Rapids, Mich.
Conv., Mackinac Island, Mich., 1926.

Missouri Association of Public Utilities
Pres.—Wiley F. Corl, Community Power & Light Co., St. Louis, Mo.
Sec.-Tr.—F. D. Beardslee, 315 N. 12th St., St. Louis, Mo.
Conv., 1926.

New England Association of Gas Engineers
Date of Affiliation—Feb. 19, 1919.
Pres.—H. N. Cheney, Boston Consolidated Gas Co., Boston, Mass.
Sec.-Tr.—J. L. Tudbury, 247 Essex St., Salem, Mass.
Conv., Boston, Mass., Feb. 24 and 25, 1926.

Gas Sales Association of New England
Date of Affiliation—Oct. 1, 1919.
Gov.—J. J. Quinn, Citizens Gas Co., Quincy, Mass.
Sec.—J. H. Sumner, 719 Massachusetts Ave., Cambridge, Mass.
Annual Meeting, 1926.

New Jersey Gas Association
Date of Affiliation—April 25, 1919.
Pres.—H. D. Whitcomb, Public Service Electric & Gas Co., Newark, N. J.
Sec.-Tr.—R. A. Koehler, Public Service Gas Co., Newark, N. J.
Conv., 1926.

Pacific Coast Gas Association
Date of Affiliation—Sept. 18, 1919.
Pres.—E. L. Hall, Portland Gas & Coke Co., Portland, Ore.
Exec. Sec.—Clifford Johnstone, 447 Sutter St., San Francisco, Calif.
Conv., Portland, Ore., August 17-20, 1925.

Pennsylvania Gas Association
Date of Affiliation—April 10, 1919.
Pres.—Wallace G. Murfit, Bucks County Public Service Co., Newtown, Pa.
Sec.-Tr.—Geo. L. Cullen, Harrisburg Gas Co., Harrisburg, Pa.
Mid-Year Meeting, Scranton, Pa., Dec. 7, 1925.

Southern Gas Association
Date of Affiliation—May 20, 1919.
Pres.—S. E. Linton, Nashville Gas & Heating Co., Nashville, Tenn.
Sec.-Tr.—J. P. Connolly, 141 Meeting St., Charleston, S. C.
Conv., New Orleans, La., March 15, 16, 17, 1926.

Southwestern Public Service Association
Date of Affiliation—September 26, 1923.
Pres.—W. E. Wood, Houston Electric Co., Houston, Texas.
Chairman Gas Section—P. E. Nicholls, Galveston Gas Co., Galveston, Texas.
Sec.—E. N. Willis, 403 Slaughter Bldg., Dallas, Texas.
Conv., 1926.

Wisconsin Utilities Association
Date of Affiliation—March 25, 1919.
Pres.—G. H. Wilmarth, Northern States Power Co., Eau Claire, Wis.
Chairman Gas Section—S. B. Sherman, Wisconsin Gas & Electric Co., Racine, Wis.
Exec.-Sec.—J. N. Cadby, 445 Washington Bldg., Madison, Wis.
Conv., 1926.

Geographic Divisions

Eastern States Gas Conference
Date of Formation—April 11, 1923.
Pres.—W. Griffin Gribbel, John J. Griffin & Co., Philadelphia, Pa.
Sec.-Tr.—R. A. Koehler, Public Service Gas Co., Newark, N. J.
Conv., 1926.

Employment Bureau

SERVICES REQUIRED

WANTED—Water heater salesman wanted by well-known manufacturer of automatic gas water heaters; preferably residing in Brooklyn, N. Y. Address A. G. A.
Key No. 056.

GAS COMPANY operating in the Metropolitan District, New York, offers a permanent position to a thoroughly qualified Street Main Foreman. Address giving experience, salary expected and when services are available. Answers will be considered confidential if desired. Address A.G.A.
Key No. 058.

WANTED—A Chemist for gas plant in New England. Must have requisite routine experience and be capable of assuming control of laboratory. Address replies giving details of training and experience, A. G. A.
Key No. 061.

DESIGNER—Well known manufacturer of high grade gas burning appliances has a position open for a competent man for experimental work and design of gas stoves, radiant heaters, tank water heaters, etc. Must be a practical man experienced with gases of various kinds and qualities. State fully your training, experience and salary expected. Address A. G. A.
Key No. 062.

WANTED—Thoroughly experienced Superintendent for Manufactured Gas Property located in the South. Present output approximately three million cubic feet. Applicant must understand coal gas manufacture, have excellent personality, and be able to increase the business. The city has a population of about 20,000. State age, experience in full, references and salary required. Address A. G. A.
Key No. 066.

SERVICES OFFERED

ENG.-SUPT. of one of the largest gas plants in the country would consider change. Desires to locate with company in which opportunities for future advancement are better than in present position. Is a married man. Has technical University training. No particular preference as to location. Address A. G. A.
Key No. 159.

EXECUTIVE, with fifteen years' experience in coke oven practice on plants manufacturing surplus gas for city consumption, desires connection with growing public utility either as executive or position leading to same. College graduate, good personality, married. Available on reasonable notice. Address A. G. A.
Key No. 172.

WANTED—Executive position by young man with eighteen years' (18) experience in all branches of gas business. Eight years (8) as manager. Past four years, vice-president and general manager of gas company with nearly 10,000 meters. Mechanical engineer. Will accept position as manager of company with 7,000 to 10,000 meters, or assistant manager and engineer, with larger company. Married man. Replies must be strictly confidential. Address A. G. A.
Key No. 177.

WANTED—Am open for position as appliance salesman with Gas Company or Appliance Manufacturer. Have had twelve years' experience selling ranges, water heaters, room heaters and illuminating devices. Am at present employed in this capacity by a large corporation, but desire to make a change. Can furnish references from present and past employers. Married. Can report on reasonable notice. Address A. G. A.
Key No. 179.

WANTED—Position as Manager of Gas Company. Coal or water gas. College trained. Have served in works, street and office. Doubled meters and doubled output in last position. Address A. G. A.
Key No. 184.

WANTED—Executive position with more promising future by man with a broad practical experience in the manufacture and distribution of gas and electricity; also in the distribution of natural gas. Have operated successfully as executive of combined gas and electric property for over nineteen years. Services available upon reasonable notice to present employer. Address A. G. A.
Key No. 188.

WANTED—An Executive Position in Commercial Department. Young man with 14 years' experience and a thorough knowledge of the gas business. Salary discretionary. Address A. G. A.
Key No. 186

POSITION—Wanted as Supt. of small gas company or as General Foreman of large plant. Approximately seventeen years' experience in all branches of manufacture and distribution, high and low pressure systems. Address A. G. A.
Key No. 190.

WANTED—An executive position in Commercial Department. Young married man with 12 years' experience and a thorough knowledge of gas and electric accounting. Moderate salary desired. Available on reasonable notice. Address A. G. A.
Key No. 191.

INDUSTRIAL ENGINEER available on short notice. Nine years' experience in industrial and commercial department supervision. Record and references will be furnished. Address A. G. A.
Key No. 192.

WANTED: Position by a Gas Engineer with twenty-three years' experience in all branches of the gas business and who has had experience in plant efficiencies and gas distribution problems. His connection with a strong operating company would make him a valuable man for a holding or a large operating company owing to his ability to reduce manufacturing and distribution costs. Would prefer position in the East. Address A. G. A.
Key No. 193.

WANTED: Position as Manager of Gas Property of 10,000 meters or more; prefer city where public relations are not good. Address A. G. A.
Key No. 194.

PROGRESSIVE GAS MANAGER, with University training, at present employed, desires change; am married and man of family; have sixteen years' experience coal and water gas manufacturing, high and low pressure, construction and distribution. Desires connection with gas company with daily sendout of from one to two million cu.ft. Am a go-getter as to industrial new business. Best of references. Address A. G. A.
Key No. 195.

PUBLIC UTILITY EXECUTIVE, with broad experience in engineering, management and finance desires position. Offers character, integrity and ability with service. Address A. G. A.
Key No. 196.

WANTED—Position as Manager or Engineer for gas or gas and electric property by practical Gas Engineer thoroughly conversant with management problems, rates, industrial business development, design, construction and operation of coal and water gas plants, high and low pressure transmission and distribution. Considerable experience with electric power plants and natural gas properties. Technical education and twenty-two years' experience, fourteen years of which have been in gas and public utility work. Address A. G. A.
Key No. 197.

OPERATING ENGINEER desires communication with a utility property requiring the services of an operating engineer. Property either electric or gas or combined preferably in a medium size city with 25,000 customers or upward. Location preferably north central State or Canada. Position general superintendent or manager. Have had twenty-one years active contact with operating problems of diversified nature in electric, gas, water and telephone utility service as gas engineer, superintendent of distribution, chief engineer, general superintendent and manager. Am at present employed. Address A. G. A.
Key No. 198.

WANTED: Position as manager or superintendent of a coal, water or combination gas plant, by a technical man, thirty-five years of age, with thirteen years' all around gas experience. Services available upon reasonable notice to present employer. Address A. G. A.
Key No. 199.

MAN, 43 years of age. Over 20 years' experience in the gas business handling fitting, main, service and meter departments of large eastern gas company, sales, production and cost accounting in an allied industry. Studied mechanical engineering and gas engineering course of the American Gas Institute. Can furnish excellent references and fidelity bond. Available upon short notice. Address A. G. A.
Key No. 200.

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